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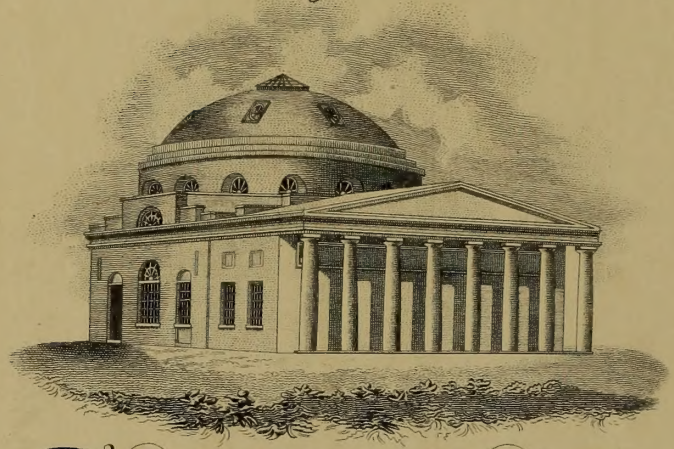

University of Maryland

University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the tables of contents were Richard J. Behles, Historical Librarian/Preservation Officer; María Milagros Pinkas, Metadata Management Librarian; Angela Cochrane and Carol Harling-Henry, Resources Division; Sarah Hovde, Abra Schnur and Megan Wolff, Services Division.

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UNIVERSITY OF MARYLAND

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1 Noteworthy calligraphy with color on title page.
2 Hand drawn color illustrations.

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1821-1851; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

3 Detailed drawings of the brain.

Author	Title
Wood, Isaac Newton	Asthma
Burgess, John J.	Remittent Fever (Partially faded ink)
Board, Francis Harwood	Anatomical Structure of the Uterus and Fluor Albus
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UNIVERSITY OF MARYLAND

THESES

1854(b)

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An
Inaugural Dissertation
on
Death;
Submitted to the examination
of the
Provost, Regents
and
Faculty of Physic
of the
University of Maryland,
for the degree of
Doctor of Medicine,
by
Edgar C. Hunter
of
Maryland.
1884.

IMB
18907

In reflecting upon the present greatness and renown of the University of Maryland, that time honored institution, and meditating upon the devotion and self sacrifice of those truly great and honorable men, who exerted all of their time and talents, to win for our Alma Mater, a name that should be handed down to posterity in unsullied purity, and refulgent brightness, and who watched over her in the cradle of infancy, and directed her youthful steps with untiring zeal and perseverance, to that

high pinnacle of glory and greatness upon which she so justly deserves to be seated, and upon which she will ever reign triumphant as a mighty and majestic queen of Medicine. What generous heart can think of those men, without praising them for their zeal, honoring them for their ambition, and loving them for their virtues. And who can revert to the past and think of that bright reward Fame, without a desire to emulate those champions in the advancement of medical science; as for myself my heart is filled with ambition and hope to labour in the same great cause. But where now are those heroes? Never again will the old walls of the Maryland University

reverberate the sound of their loved voices. Alas! They are no more: They have reaped the reward, the sweetest of all earthly boons: the consciousness that their lives were spent in the relief of suffering humanity. For wherever disease and death, (those twin deamons of distruction) have presented themselves, even in their most deadly array, there have those veterans been found battleing with the enemy till the latest moment. Though they were unable to stay his fatal grasp; yet could they rob him of his terrors. But alas! That mighty foe with whom they have so long warred has been even their conqueror! For now they live but in our hearts;

Their beloved forms are wrapt in slumber and sleeping in undisturbed repose: in the lone and silent city of the dead. Their immortal souls have been wafted to that bright and better world; where they will reap that glorious reward, and enjoy that eternal bliss, which heaven alone can give.

That Vampire death, who visits every habitation from the mightiest palace down to the meanest hamlet, and who spares neither youth, beauty, age, nor condition, must be familiar to all. But the manner in which this insidious destroyer makes his attack upon that weak fortress, the human frame, is the subject selected

for my humble dissertation.
I need scarcely assert that every
member of this great human
family must die, and with
equal confidence say, the
awful dissolution does not
take place in all alike.
Some are snatched away in
the bloom of youth and man-
hood; when all is bright and
beautiful, to appear before
that just tribunal with-
out a moments warning.
Others pass with such slow
and steady march from
life to death, that it is
impossible to tell when the
bond of union between the
body and soul is severed.
Decay is as natural a conse-
quence as development.
In childhood, We hear the

merry laugh, we see them skip and play, as if their whole being was made up of joy and gladness. But we see the aged man with wrinkled brow, and tottering footsteps pass unheedful by as if communing with his own spirit.

He no more participates in the gambolings of youth, or the follies of manhood: But why does his eye flash with brightness and his aged countenance light up with a smile that plays around his troubled brow, like the last rays of summer: And why does his feeble hands at times convulsively grasp his staff: Ah he is thinking of her who was the partner of his youth, and who

garnered up his heart in its sunny hours. But alas! she has long since gone to that last home whither he must soon journey.

All who are acquainted with the structure and mechanism of that great animal machine, (as it has been called) the human system; must be aware it is composed of three great vital organs: namely, the Brain, Heart, and Lungs, and death always begins at one or other of the three. Those organs all tend to one important end the maintenance of life, and are so inseperably connected with each other that if any thing attack and overcome one of them,

the other cease performing their office, and life is extinct. The different modes of dying are not only interesting to the medical man; but it is actually necessary that every practitioner should be perfectly acquainted with them; that he may direct his efforts with the surest effect, in the treatment of diseases, and battle with the enemy in the most effectual manner. What great views, Gentlemen, tells us to obviate the tendency to death, and we can never do this without knowing the different modes in which the monster steals upon us;

In pursuing this inquiry further, that is how we may evert death, we must remember that the circulation of the blood is necessary and inseperably connected with life; and whatever causes it to cease flowing must as a certain consequence produce death.

Who can consider the beauty, the sublimity, and yet the simplicity, of the greatest of all machines the human system, and remember how well it is constructed to carry on and maintain its proper functions; without his own insignificance and weakness rushing upon his mind; and without being compelled to admire with silent

awe, the wonderful works of his creator. We see how beautifully the nervous system caries out its special function, which is to excite and keep in action all of that complicated machinery which is so necessary to life: it also causes the voluntary part of that great work, to answer to the stimulus of the will.

Next there is the heart, and nothing could be more elegantly constructed, or more simply arrainged, for carying on and maintaining that great office, the circulation of the vital current than it is.

The third and last great organ is the lungs; and

how admirably and perfectly are they constructed to carry on that beautiful and important function the oxygenation of the blood.
In pursuing our subject according to the divisions that have been made, I will first inquire into the manner in which death may begin at the head. We say beginning at the head because that part appears to be the first affected; being the center of the nervous influence.
This mode of death is called Coma; because that symptom generally takes place; particularly when the nervous system is not overpowered too suddenly.

The diseases which are most likely to terminate in this way; are malignant fevers, ensephalitis, apoplexy, epilepsy, tettanus, and some of the narcotic poisons, in fact all diseases which aim their blows directly at the nervous system; tend to death by Coma.

Every medical man should remember when he is called to a case of poisoning, that he should not cease with his efforts to restore life, untill long after apparent death; for the overpowering effect of the drug may have exausted its self, and be about to pass off, when the action of the lungs are overcome: but organic life may yet be remaining.

and if artificial respiration can be established in time to save the life of a fellow being, may be crowned with success. The heart does not as a necessary consequence cease its action, immediately on the supply of blood being diminished in quantity and in a more or less venous condition when received from the lungs.

The respiration ceases because the proper nervous stimulus is lost, which causes the blood to stagnate in the capillaries of the lungs, and their function being no longer performed, the blood must necessarily be returned to the heart in a venous and unoxygenated

condition, which naturally stimulates that organ to pulsate, and presently life is extinct.

Although the action of the heart, and lungs, do not descend entirely from the intracranial mass, as is proved by keeping them in motion, in a decapitated animal; yet if violent blows or concussions be received by the brain, the functions of both may be instantly removed, and death immediately results: this may be accounted for by the shock being transmitted directly through the nervous systems, to those organs. The accidents which are most likely to produce

this sudden stagnation of life, if I may use the term; are an effusion of blood upon the brain; one of the deadly poisons; such as Hydrocyanic acid or perhaps mental emotion; in short any thing which makes a violent and instantaneous impression on the nervous system.

The anatomical characters seen after death by Coma, are not very marked, there is generally venous congestion in the lungs; if death has not taken place too rapidly, and the heart is more or less empty and contracted.

I will next consider the modes of death which take place in the center of the circulation, the heart; which are

properly but two; Asthenia, and Anaemia, meaning want of strength and privation of blood. Death by Anaemia is generally the result of accidents which cause violent and fatal hemorage, such as wounds received on the field of battle, the bursting of an Anurismal tumour, or diseases which rapidly run down the powers of life. There is a peculiar train of symptoms which designate this mode of dying; namely restlessness, more or less delirium, weak irregular pulse, pale cold skin, sometimes bedewed with clamy sweat, respiration sighing, countenance anxious, and at last convulsions, which generally

close the scene.
The Pathological signs, are not very important except the empty and contracted stated of the heart; and other phenomena which always accompany the too great loss of blood.
There appear to be necessary to enable the heart to perform its function properly, three things. The first is a certain nervous influence; The next a sufficient quantity of blood to stimulate it into action; The third and last the power to contract upon its contence.
I have already considered the manner in which death would take place if

the two first were deficient or entirely wanting; and now I will notice the third condition which is the one just mentioned the want of contractile power.

Death taking place in this way is denominated Asthenia, the definition of which has been already given. This mode is very frequent and is generally caused by diseases of long standing, and by those that gradually wear down the system, such as Phthisis, Typhoid fever &c.

On making a post mortim examination, we find the heart pale and distended with blood; which proves it was not the want

of stimulus, but power, which caused it to cease acting. I will next consider death beginning at the last great vital organ, the lungs. When death begins here it is called Apnaea, which is want of breath. Death by Apnaea may be brought on by any thing which impedes or prevents the entrance of air to the lungs, for instance submersion in water, breathing impure air, or any thing which prevents the expansion of the lungs, such as an effusion of fluid in one or both pleura, or wounds of the chest which cause the lungs to collapse by allowing the external air a free communication into the cavity of the thorax:

or there may be an effusion
into the substance of the lungs,
such as sometimes takes
place in Pneumonia, or
perhaps the chink of the
glottis may be spasmodically
closed, in short anything
which prevents the perfect
oxygenation of the blood;
thereby causing it to stag-
nate in the capillaries
of the lungs, and to be sent
to the heart unaerated causing
that organ to cease its efforts.
When Apnoea is brought on
suddenly the phenomena
are very striking, the most
marked is the spasmodic
contraction of the respiratory
muscles, the dilated nostrils,
the elevated shoulders, the anxious
and imploring countenance,

and the vain attempts to respire; all but too plainly tell of the awful change that is taking place.
There is nothing but what might be expected on making an examination after death, the lungs are congested with venous blood, and the heart is empty and contracted.
There are several other modes of dying, but are of minor importance as they all partake more or less of the principle varieties that have been mentioned.
I might remark that the most important of this class is death by Ananition, which sufficiently informs us of the causes which produce it.

Two of the vital organs
I might mention, participate in this mode of dying more than the other; I mean the heart, and lungs, and they sympathize so closely with each other, that it would be impossible to tell which suffers most; but if either it is the heart.

In making an examination after death by starvation, we find a pale and bloodless condition of the whole system which of course is easily accounted for, if we consider the constant change which is going on in the fluids and solids of the animal economy.

I must now bring my remarks to a close: Not that I have exhausted this truly interesting and important subject; for I am aware of my own weak intellect, and feel how inadequate my knowledge is to the task; But I shall be richly rewarded, if these few lines cause the reader one moment of deep reflection, which perchance will lead him to look; not to this world, (which is all a fleeting show) but through the dim vista of the future to that blessed land; where joy the golden dream is immortal.

Who can meditate upon the frailty of man, and think of the ills, and dangers, that constantly

beset him, and consider how soon he must be swept into eternity, and perhaps leave a beloved wife and children to mourn his untimely loss; Who can think of all this without trembling, I answer none. Amidst the din and roar of battle, when all is excitement and confusion, the hero may march to death, with a gay smile and unfaltering footsteps; but ah, when he is stricken down by disease, upon the bed of affliction sorrow and dispare, and death that (King of Terrors) who spares nay, none, not even the little bake that twines its tiny arms about its mothers neck,

and lisps those angle notes
of innocence and youth, she
loves so much to hear; I say
when that monster death,
has laid his cold icy hand
upon his feverish brow; he
will then feel what it is
to fear, for in that dark
hour will his myriad of
follies, flit before his clouded
vision like so many dim
specters of the past, that have
come to upbrade him for
his wickedness. Oh none
but the truly good Christian
in that terrible hour of
anguish; can meet death without
a shudder. But why does
the good mans countenance
beam with joy; as he say
thrice welcome death, and
smiles at his approach.

It is because he has broken
beyond this world of sin,
and sorrow, & temptation,
and placed his trust in him,
who lives life and death
within his grasp. In the
sublime words of the Book,
"So live, that when thy summons
comes to join
The innumerable caravan, that moves
To that mysterious realm, where
each shall take
His chamber in the silent halls of death
Thou go not like the quarry slave
at night
Scourged to his dungeon, but sustained
and soothed
By an unfaltering trust, approach thy grave;
Like one who draws the drapery of his couch
About him, and lies down to
pleasant dreams.

An

Inaugural Dissertation

upon

the action of **EMETICS** on the human system

Submitted to the examination

of the

Provost, Regents & Faculty

of

MEDICINE

OF THE

UNIVERSITY OF MARYLAND

for the degree of

Doctor of Medicine

BY

Christian Steinhofer

of

BALTIMORE

1854

To G. W. Miltenberger M.D.
Professor of Materia Medica, Therapeutics
and Hygiene in the University of Maryland
as a slight but sincere token of admiration
for his talents as a teacher his genius as
a practitioner and his character as a man.
I beg leave (wishing it were more worthy)
respectfully to dedicate my inaugural
dissertation.

C. H.

Emetics are a large and important class of remedies in the treatment of diseases, and may be defined as agents, the ordinary result of which in certain doses, is to produce vomiting or an evacuation of the contents of the stomach; by their therapeutical action, their beneficial effects are also exerted upon more distant organs as we shall explain hereafter.

Emetics cause vomiting directly or indirectly, directly by irritating the stomach by coming in direct contact with its internal lining, the mucous membrane, and thereby causing its muscular coat to contract in all directions for the purpose of rejecting the offending matter. Their indirect action is sympathetic, the power in that case is exerted on the nervous system which cause the diaphragm and abdominal muscles to contract upon the stomach and thereby mechanically force out its contents.

In olden times the attention of Physiologists was drawn to the 'modus operandi'

of emetics, and much dispute has arisen in regard to their action on the human frame. Many have carefully investigated the matter by administering emetics and watching the whole process of phenomena which followed and than came to the conclusion that the stomach itself added nothing to the process of vomiting, but that the whole operation was owing to the compression of the diaphragm and abdominal muscles, this theory was supported by Magendie and Chirac, the latter of whom experimented much on different animals before he came to this conclusion.
On the other hand we have others of equal high standing and practical experience who have asserted and most ably sustained that emesis can only be brought on by direct impression on the stomach, made either by the emetic itself or through the praecordial nerves. Now taking the above theories into consideration we must naturally come to the conclusion, that vomiting may be produced

in both the above ways, and if so it seems more reasonable that all action conjoin and co-operate with each other, for we know that when Sulphate of Zinc or any other speedy emetic is administered vomiting follows often before any action is produced in the diaphragm or abdominal muscles.

Emesis may be brought on by over loading the stomach, by irritating the fauces with a finger or feather, by injecting Tartar Emetic into a vein no matter how distant from the stomach, Strangulated hernia, Hydrocele, Hydrocephalus &c are frequently the cause of vomiting, numerous other things may bring on vomiting as for instance the smell of foul or nauseous vapours, the sight of some putrified carrion or the like often imagination has much to do with bringing on vomiting, for instance could you convince one after eating a piece of beef steak, that, that was a piece of human flesh which he had been eating, he would invariably throw it up again

no matter how well it agreed with him before.

The first effect that we perceive after taking an emetic is an uneasy sensation in the epigastric region, soon followed by nausea, which is one of the most unpleasant sensations that we know of it manifests itself by the pale and dejected looking face, the general expression of the face is that of one suffering pain and feeling faint, the eyes look dim, the lips tremble and dont retain the saliva which begins to flow freely the skin is cold and covered with perspiration which is profusely poured out, the pulse is frequent and small gradually becoming more feeble, the muscles become more relaxed, the vital powers fail and general debility takes place, at this time a convulsive action takes place the abdominal parietes contract and vomiting comes on, which produces a general revulsion throughout the whole system, the face which has been pale and covered with a cold

Clammy sweat, becomes now flushed with blood the cheeks look rosy and perfuse warm, for spiration sets in.

When emetics are taken their action is not confined to the stomach and epigastric region alone, but diffused throughout the whole system, every gland and organ in the whole frame is more or less influenced by their action, we find them to exert a powerful influence over the mucous system, air passages, absorbents &c as we shall see here after.

From what has been said in regard to the action of emetics, it will be obvious that the abdominal viscera, liver, gall bladder and Kidneys will be much effected by their action. As the gall bladder is so situated on the liver that the slightest pressure from the contracting abdominal muscles on the liver can be directly transmitted to the gall bladder, we can easily understand why, after the second or third act of vomiting bile is thrown up, this bile is the more easily drawn into

the duodenum and than into the stomach in consequence of the biliary ducts and Pilloric orifice being already dilated and flabby, caused by the nausea which existed previous to the vomiting. If vomitting is still kept further the whole contents of the duodenum will be passed into the stomach, and than thrown up, this fluid has the consistance of curdled blood of a blackish brown colour. known commonly as coffee grounds vomits

The action of emetics on the kidneys, bladder and urinary passages is often of great value, they promote secretion, clear the urinary ducts, establish a free and copious flow of urine, and thereby often relieving great suffering in these organs.

We will now proceed to the thoracic organs and see how they are effected by the use of emetics we know that before emetics produce vomiting, the act as a powerful sedative, the diminish the vital powers throughout the whole system, this

sedative action is very perceptible in the heart it does not contract with its usual force and drive the blood to the capilary vessels as it did in its normal state. Hence we have the internal vessels engorged with blood, the skin pale cold and dry pulse small and feeble but as soon as vomiting has commenced the heart will act with new energy and force the blood that has accumulated within it now driven to the extremities and skin, the face becomes flushed and the pulse firm and full, the capillaries which were a moment before comparatively empty are now filled with blood and soon pour out a profuse flow of perspiration owing to the contraction of the abdominal muscles and viscera on the Vena Cava and thereby somewhat impeding the return of the blood.

The lungs and respiratory organs are also much influenced by emetics. The nervous shock which the system receives from every act

of vomiting causes the offensive matter which may have accumulated in the air passages to be dislodged and expeled thereby clearing the bronchial tubes from all foreign substances which might prevent the free and easy breathing of pure air, thus we gain often great relieve in pulmonary or bronchial effections from a gentle emetic.

On the brain the effects of emetics are great and much benefit may often be obtained, if they are judiciously employed in the treatment of cerebral effections. The sympathetic action of emetics on the brain manifests itself as soon as they begin to act vertigo and debility is soon experienced the organ becomes unable to perform its function. When vomiting occurs and the nervous shock is given the impaired energy of the brain is still more shown, a tendency to sleep supervenes, hence an inclination to sleep is invariably felt, after emetics have ceased to operate and we ought not to interfere for it appears as if

nature required a state of repose after the nervous shock to give the brain time to recover its natural strength and tone. It is the shock which the brain and the whole nervous system receives from emetics that makes them so valuable a remedy in the treatment of cerebral derangements as in Mania, Hypochondria &c. As we have seen above emetics have a marked sedative influence over the whole system, and possess the properties of diminishing the vital powers, this is nowhere more markedly seen than in the muscular system. For instance take a man whose muscular strength and power cannot be surpassed now let this man be brought under the influence of emetics and as soon as nausea commences his strength will vanish. The muscles which were but a short time before rigid and tense are now relaxed and so it is. Then emetics have this power over the muscular system as we have stated, and so unpleasant consequences follows their use it will be obvious, that they are the most valuable

medicine which we possess if we wish to deprive for a while the muscles of their contracting power and this is just what we want in reducing a dislocation where the parts are rigid and tense as there often is a great difficulty in overcoming the contracting muscles as also in setting a fracture or reducing a strangulated hernia but these are not all the cases in which emetics may be employed with advantage for their relaxing properties we find them highly useful in Tetanus where the muscles sometimes contract to such an alarming extend that the bones are in danger of being fractured it is here that emetics act like a charm under their use the muscles become relaxed and the suffering comparatively ceases

We have now seen how some of the most prominent organs of the human frame are effected by emetics we have seen that their actions does not stop locally but that their most beneficial effects are more remote.

We will now see in what condition of the system emetics are admissible or inadmissible although little need be said on this point, as we have already seen their Modus operandi and from this every observer can readily see in which cases they may be employed with safety and where not.

1.) Emetics ought not to be used where general plethora or a determination of the blood to the head or brain exists for we have seen, that during vomiting congestion of the blood to the head takes place but should some urgent case demand an emetic as for instance in poisoning blood should first be taken from the arm before emetics are given.

2.) When the system is debilitated and the vital powers so much depressed that we have to fear, for the system not being able to bring on reaction after the nervous shock.

3.) When the mucous membrane of the stomach or intestines are in a state of inflammation were we here to irritate the

already inflamed membranes more by emetics uncontrolable vomiting might take place.

4.) When the contraction of the muscles concerned in vomiting may prove injurious as in hernia, in pregnancy wounds of the abdomen &c.

We may now lay down a few general rules in regard to the administration of emetics and diseases in which they are most applicable.

Emetics, as a general rule should never be given in large doses, unless the stomach demands immediately a free evacuation for in small or under doses repeated at short intervals they act equally certain and are more safe to administer as the susceptibility of the stomach to emetics as to all other drugs differs in different individuals or in the same individual at different times. As a general thing when one kind of medicine is employed for any length of time the stomach loses its susceptibility for that medicine,

for instance give every day for a few weeks a certain dose of purgative the dose that you give at the end of two weeks although as large as the first will not act as freely and promptly as the first. contrary to this rule is that of emetics the oftener they are used the more susceptible becomes the stomach to their impression thus in some emesis may be produced by giving one tenth of an ordinary dose of some emetic Cullen speaks of a man who could bring on vomiting by taking the twentieth part of a grain of tartar emetic.

The best time for giving emetics is when the stomach comparatively empty as the drug employed comes more in direct contact with the organ and consequently acts more promptly than when previously mixed with the contents of an over loaded stomach. Hence the best time to administer emetics is in the morning before much food has been taken, when nausea is about to be followed by vomiting some mild diluent

drink such as Chamomile tea, warm water and the like should be taken freely to facilitate the action after the operation is over the diet should be simple moderate and easily digestible; no strong or irritating food should be taken for at least thirty hours after the vomiting is over.

We shall now briefly notice a few of the diseases in which emetics are applicable, and in which they may be used with advantage.

It would be impossible for us on this occasion enumerate and describe all diseases in which emetics are proper and useful, we shall content ourselves by speaking of a few of them by the way of illustration.

Probably in no class of diseases have emetics been more freely employed and with more benefit than in fevers. In all ages countries and climates have emetics been used and with great success, not only in relieving febrile

experiment but often in cutting short the disease if judiciously employed in its very onset.

Why emetics act in fevers with such marked benefit is obvious, as we know that they evacuate the stomach of all its unhealthy contents promote the secretion of the liver and urinary organs, give a shock to the nervous system and thereby establish a free circulation of the blood throughout the whole system.

In intermittents and remittent fevers emetics are certainly a valuable remedy, but not a specific for nothing is a specific for these diseases excepting Cinchona or its preparations, emetics ought to be used in these diseases at their very onset as a preparatory step for more active treatment. If emetics are given just before the return of a paroxysm is expected the paroxysm will often fail to occur and if it does it will not be so severe as it would have been had this precursory step not been taken. Some have recommended emetics in the cold

stage and some in the hot or sweating, but as in either of these stages already a determination of the blood to the brain exists emetics should be given between the paroxysm.

In bilious fever when the liver does not perform its ordinary function and the secretion of bile is embarrassed much good will result from a gentle emetic.

Croup is one of those diseases in which emetics are of great value. They should be employed early and in sufficient large doses to produce vomiting speedily to dislodge the false membrane or else death will soon follow from asphyxia.

In Bronchitis, hooping cough Convulsions &c. as in most all other diseases of the throat and chest emetics are highly useful.

In hernia humoralis as also in bubo emetics may be frequently used with striking advantage indeed they often remove the swelling when all the remedies

have failed

The most valuable emetics which are the following one of which may be indicated or contraindicated in the treatment of particular Cases of disease Sulphate of Antimony and potash is usually administered in doses of ij to vj grs. Ipecacuanha is one of the mildest and at the same time the speediest of that Class of remedies the dose being from x grs. to ℈j. Zinc. Sulph. Cupri Sulphas Lobelia inflat. Rad. Scillae Rad. Senegae Mustard &c. are also in general use by practitioners but as I do not intend to treat upon Special emetics and their history but merely designed a discourse upon them generally their therapeutical application and physiological action must now close trusting that my efforts will meet with the approbation of those who are to pronounce upon its merits and that it may prove satisfactory to the gentlemen of the faculty who have with untiring assiduity endeavored

the past few years, to impress my mind with
the great truths of medical science.

Very Respectfully,
Christian Heinhofer

An
Inaugural Dissertation
upon
Fractures and Dislocations
of the
Elbow Joint
submitted to the examination
of the
Provost Regents and Faculty
of
Physic
of the
University of Maryland
for the degree
of
Doctor of Medicine
by
William H Murray
of
Baltimore Md.

To A R Smith, M.D.
Professor of Surgery, of the
University of Maryland.
These lines are respectfully
dedicated
by his
grateful pupil.

Fractures and dislocations of the [illegible] joint we consider a good subject for a Thesis; and for the reason that the diagnosis and treatment of these injuries being so difficult, the study and search necessary to compile a treatise upon them, will be the better fitted to act when the opportunity occurs. In order that their peculiarities may be the better discussed, it will be proper to treat conjointly of those injuries which must resemble each other.

Fracture of the Condyles.

This is a comparatively frequent injury especially to children; and attends many families; the most common being fracture of the shaft of the bone more oblique, than transverse, just above the condyles. Yet it is very often comminuted, the same violence that breaks the bone splitting and

separating the condyles. This is the
bone likely to recur, owing to the
thinness of the bone at this point
which is deeply grooved on either
side for the lodging of the olecranon
and coronoid processes of the
trochlea.

In simple oblique, or transverse fracture of the shaft, the short fragment is pulled up by the triceps behind, and

the action of muscle from by the brachialis anticus and biceps in front. The long extremity is thus thrust forward into the bend of the arm; and the obvious features bear much the appearance of dislocation backwards of the bones of the forearm upon the humerus. Depression behind at the point of fracture with the projecting extremity below at the elbow; and a tumor in the bend of the arm

are all symptoms of dislocation.
To distinguish this injury, as the humerus be held steady above the point of fracture, whilst gradual extension is made with the forearm and natural will deformity disappear, but very distinct crepitation in most cases be heard. The deformity however reappears as soon as the bones are released. Now dislocation could not be reduced by such simple means and if it could, would not return immediately to its former condition. Another diagnostic distinction is that perfect motion can be produced by the surgeon in a case of fracture, whilst in dislocation the relation of the forearm to the humerus cannot be changed but by reduction or a fracture.
When this injury is connected with separation of the condyles there will be, in addition to the symptoms already mentioned, much more crepitation and mobility of the joint with a lateral bat-

ging out of the condyles: for the olecranon is always driven into the fissure and assists in the displacement of the condyles.

Dislocation backwards of the bones of the forearm. This is the most frequent dislocation of the arm and is caused by a fall upon the hand when the arm is preternaturally extended, or more commonly by a wrench. When the arm is thus violently extended the anterior ligament may give way. the coronoid process be raised upon the pulley, and then a slight force would drive the bones backwards, until the coronoid assumes the position of the olecranon.

The principle changes are relaxation of the triceps, the biceps and [illegible] anticus violently stretched or torn from their attachments: the ligaments also are generally torn. The head of the radius is lodged behind the external

condyle. The tumor that the condyles form in the bone of the arm differs from the sharp irregular extremity of the broken bone. This dislocation sometimes involves fracture of the coronoid process, which renders the treatment much more difficult.

Treatment.

There is no point of surgery perhaps that will better display the true physician, than successful treatment of all fractures, and dislocations. Yet why this should be so, it is hard to tell: the knowledge required being simply mechanical. The poorest carpenter were he informed that the two fragments of a bone would unite when brought accurately into apposition, and kept there, would have sense enough to place the bones in proper position, and apply splints sufficiently long, and stable to preserve the union.

A physician sensible enough to dis-

a carriage, were he to break a shaft, and undertake to splinter it, would know better than to apply them three or four inches long, simply to the point of fracture. Yet ten to one were he there on his way to treat a fracture of the condyles, he would apply to it a splint like the following, without being certain of the nature of the injury.

I am precisely such a splint, made of small pieces of pine shingle, three or four inches long and joined at the angle by a thin strip of morocco, employed in a recent fracture of the condyles. After ascertaining certainly the nature of the injury, which must be done in spite of the pain inflicted by manipulation; common sense should indicate the treatment.

If a fracture, place the broken extremities in apposition; and the limb in that position that will, as much as possible, relax the muscles which tend to dis-

placement. Support dependent parts, and do not create any unequal pressure by the splints, or impede circulation by the bandages.

In simple fracture of the condyles, let the humerus be held firm, whilst the forearm is drawn gently forwards, and deformity disappears. Then place the joint in an angular apparatus, and the hand in a sling; and so let it remain for three weeks of a child, four weeks if an adult. The simplest, and one of the best forms of apparatus, from the endless variety that are employed, is that made of binders board; which can generally be procured, and by the aid of a knife, and peice of thread adapted in a few minutes. After the swelling and inflammation have entirely subsided it might be proper to substitute for this the starch apparatus.

It is better to pad well the splint, than to bandage the arm, which

impedes more or less the circulation, and galls the limb. When this injury is complicated with separation of the condyles, it will be necessary to reduce the olecranon from its lodgment between the condyles, and to keep them forcibly together and keep them so by a bandage.

To reduce the dislocation of the forearm backwards. When the case is a recent one, and the subject not a very muscular one, the arm may be reduced by pulling [illegible] extending the forearm, whilst traction is made at the same time from the wrist. This will dislodge the coronoid process and raise it upon the pulley; and then flexion will throw the bone into place. If the coronoid process has been broken off, it will be necessary to keep the arm in an angular apparatus for some time, though bony union seldom takes place. In old standing cases reduction is attended with difficulty, and danger; the ne[illegible]

has frequently been broken off [illegible] hard to say whether this is to be required since the arm will then enjoy a greater extent of motion.

Fracture of the internal condyle, is recognized by slight prominence, mobility, crepitation, perceived by bending the arm backwards and forwards. Extending the forearm the condyle with the ulna is thrown back, presenting somewhat the appearance of dislocation of the ulna backwards. This deformity however disappears after flexing the arm. The treatment will be to preserve the arm at a right angle with the humerus; to pronate the hand and flex the fingers, thus in some degree relaxing the muscles which might displace the fragment. In most cases a moulded starch apparatus, will fulfill all the indications. Fracture of the external condyle is recognized by the same symptoms as fracture of the internal except that upon extension the radius is

thrown back with the broken fragment, and the hand supinated. The treatment will be the same as above, except that the hand should be flexed supinated and the fingers extended.

Fracture of the olecranon process.

This may take place either at the middle, apex, or base, and is produced by violent extension of the arm from a fall, wrench, or by direct violence, when the arm is well flexed, and the triceps put violently upon the stretch. It is recognized by an unnatural depression at the point of the elbow, and an inability of the patient to extend the arm. The treatment the only indication is to keep the arm well extended by means of a long straight splint. The dangers from this fracture are, that either bony union will not take place, or that if it does ankylosis may supervene: the former accident of course being the most desirable.

We should therefore remove the splint occasionally and produce motion in order if possible to avoid anchylosis.
Sir Astley Cooper thinks that bony union never takes place, but he attributes it to the almost utter impossibility of keeping the fractured extremities in apposition: for when he artificially performed longitudinal fracture union took place.
When we consider that the fracture is within a joint covered by synovial fluid, and nearly filling the cavity into which it works; and also that to the composition of bony union a comparatively large callous tumor is formed, it is no wonder that anchylosis should so often occur. The callous crowds the entire cavity, and adheres to the walls of the fossae olecranoidae.
There are no physiological reasons why bony union should not take place, as a great many assert, and the fact that it sometimes does, was proved by the experiment of Sir Astley Cooper.

Fracture of the coronoid process.

This accident rarely happens, but when it does occur it is generally from violent extension of the arm or by awkward attempts at reduction of a dislocation backwards. The symptoms are extension of the arm, a slight projection of the olecranon and a depression in the bend of the arm. The fractured extremity can generally be found above its normal position, making a slight tumor; and if the arm be well flexed and a side motion produced crepitation will frequently be found. The deformities all disappear when the arm is well flexed. The indications for treatment are to relax the brachialis anticus muscle, by keeping the arm in an angular splint, bent a little beyond a right angle. There is great danger of anchylosis, so that motion must early be practiced occasionally. The chief difficulty will be to keep the fragments

apposition. Fracture of the neck of the radius is a very rare [illegible] and probably happens from direct violence, since a counter stroke, from a fall, would be much more apt to break the bone at its middle or lower third. In the only case that I have seen it occurred by the arm having been caught in the coil of a cable, which was being wound upon a capstan.

When it occurs the biceps by its attachment to the tubercle will pull the lower extremity upwards, and forwards, forming a slight tumor in the [illegible] of the arm. Crepitation can be produced and the patient will be unable to pronate, or supinate, the hand. When the surgeon performs these motions, with a finger upon the head of the bone, he will find that it will not rotate as in the healthy limb. He will also probably be able to [illegible] the end of the fractured bone rotating in front

breath the cuticle. In the treatment of this injury the [illegible] will be to keep the bones in opposition, owing to the action of the biceps. We must therefore keep the arm well flexed and also lay a pad, or compress of some kind, upon the arm below the tubercle of the radius, and bandage the entire limb, pretty snugly, to the splint; which should be long enough to cover the hand. The hand should also be preserved in an attitude between pronation, and supination, which is the natural position.

Dislocation of the radius forwards.

This will be a compound dislocation as it relates to the ulna and humerus. The arm will be found about midway between complete extension and semi-flexion the hand slightly supinated and the direction of the long axis of the bone pointing more inwards than

natural. The external lateral, anterior, and coronary, ligaments will necessarily be ruptured. The head of the bone will be found resting upon the outer condyle, and offer an impediment to flexion of the arm beyond a right angle. The surgeon will also detect a tumor at this place, and may be able slightly to rotate the head of the bone in its own position.

To reduce this dislocation, let extension be made from the hand, whilst counter extension is made from the humerus. In this way, the whole force can be applied to the radius; and then by forcing the head of the bone backward with the fingers, and pronating the hand, the bone will generally slip into place.

Dislocation backwards of the radius is a very uncommon injury, but it is very easily recognised. The head

the bone can easily be felt behind the outer condyle & the hand will be drawn very much forward. The signs in this dislocation will be the same as in the preceding. The treatment for reduction will also be the same as regards extension and counter extension, but the head of the bone must be pushed inwards, and the arm forcibly supinated. In old standing cases the reduction of either of these dislocations will be extremely difficult, and often impossible.

Dislocation of the ulna backwards

This is comparatively a rare occurrence, and is frequent by the same violence as dislocation of both bones.

It is easily recognised by the tumor made by the olecranon behind, by the impossibility of flexing the forearm above a right angle, and by pronation of the arm. The reduction may be accomplished by the same means as described in dislocation of both bones.

Both bones are sometimes, though rarely dislocated laterally, either inwards or outwards. Owing to the width of the condyles, and the strength of the lateral ligaments of the joint, these are never complete dislocations. They are readily detected by unnatural prominence in front of the condyles, and towards the side of displacement: and as readily reduced in recent cases, by making extension from the wrist, and counter extension from above the condyles; then by manual force pushing the heads of the bones into their normal positions.

We have now treated separately of every dislocation, and fracture, that the elbow joint is liable to; and yet all descriptions of these injuries must be more or less imperfect, from the fact that a large majority of them are compound, or comminuted. Violence that will dislocate the radius backwards, or forwards will, from its nature and force be very apt to fracture

one or other of the bones. Again when a dislocation is connected with fracture of the either bone of the forearm, near the elbow joint, the diagnosis might be confined simply to the dislocation, and then all the rules ever laid down in surgery would be of no avail to the operator, in his attempts at reduction, though his diagnosis would be correct as far as it went. For these reasons; and from the fact that, at the best, the cure may be only partial, (the elbow coming out of the splint ancylosed) it believes the surgeon to be doubly careful in his examination for the patient's sake: but above all things for his own sake, which is of much more importance, he should not fail to warn the patient and his friends of all the dangers and difficulties attending the treatment. Then if success attends his labor, his reward, and praise will be so much the greater.

FINIS

Baltimore Feb 1st 1854.

An

Inaugural Dissertation

on

Dysentery

Submitted to the examination

of the

Board of Regents and

Faculty of Physic

of the

University of Maryland

for the degree

of

Doctor of Medicine

by

Silas A. White

of

Matthews County

Virginia

Dysentery

Dysentery is a morbid flux from the bowels, characterized by pain, tenesmus, mucous and bloody evacuations, resulting chiefly in inflamation of the mucous membrane of the large intestines, and extending chiefly to the rectum and descending colon, when the case is marked by tormina and tenesmus, and frequent evacuations of mucus without fecal matter. But occasionally the upper portion of the canal is involved when there are discharges of thin fecal matter mingled with blood in the early stage.

Simple dysentery may run its course with very little disturbance of the circulation. When it is acute and severe, it is attended with more or less fever, which may terminate in recovery, or in early death, or in chronic dysentery.

It most frequently occurs in tropical climates; at certain seasons it frequently proves very prevalent and destructive,

The causes are exposure to cold and damp weather, and dry hot weather succeeded by rains, unwholesome food, and intemperance, and sometimes follows malarious odors.

It may possibly be confounded with diarrhoea, but the differences between the two disorders are generally obvious enough. The character of diarrhoea being as a general rule, thin fecal discharges, in large quantities, unattended with pain, tenesmus, and inflamation, which are the most prominent features of dysentery.

The manifestations of the local symptoms of dysentery may be preceded by pyrexia which occasionally accompanies the disease, but more frequently the local symptoms declare themselves first. Occasionally the fever runs high, the pulse is hard and frequent, the skin hot, the face flushed, and the tongue fured and the patient complains of headache and thirst. But in this as in most other abdominal diseases, the pulse soon

becomes small and weak, the strength rapidly declines, and the extremities grow cool. There is often severe pain, subject to remissions and exacerbations, occupying the hypogastrium, or some part of the course of the colon, or the entire course of it — the extent being indicated by tenderness on pressure. The patient is tormented by a sensation urging him frequently to attempt the vacuation of the bowels, in which he fails only to a small amount of gelatinlike mucus, generally mixed with blood. In many of the dejections there is no fecal matter at all, or at other times there are small indurated balls of faces. Frequently the ejected mucous is variegated in colour, green, black, or reddish, being very fetid. Sometimes the irritation of the rectum is communicated to the bladder and causes dysuria. The stomach may sympathize and nausea and vomiting ensue. There is great febrile distress, the patient is unable to sleep, and is low spirited and desponding. When

the case is about to terminate fatal; the pulse becomes very small and rapid, the surface grows cold, a flushed spot appears on the cheek with a ghastly countenance, the action of the heart continues to grow weak until death has taken place.

The morbid appearances detected after death are ulceration of the mucous membrane of the large intestines, thickening, and sometimes mortification and sloughing of this membrane; in protracted cases, deep and extensive ulcerations in the course of the transverse band of the colon, or enlargement and ulceration of the follicles. When the disease appears in hot climates in more violent forms, there are in addition to these, morbid vascularity of the mesocolon, mesentery and omentum, with adhesions of the omentum to the adjacent viscera, and of contiguous portions of the intestines to each other; There is enlargement of the glands

of the mesocolon and mesentery, with inflammation and sometimes suppuration; the portion of intestine corresponding are found ulcerated. The most common seat of the ulcers is in the upper portion of the colon and caecum. Sometimes there are only a few ulcerations in the colon; these having thick raised edges of a sloughing character which often prove fatal. There are generally found in the lower part of the ileum, superficial ulcerations, having a rough appearance from the enlargement of the follicles and glandular bodies. This is generally the only evidence of disease found in the small intestines.

The large intestines are frequently greatly contracted in diameter especially where the case has been protracted for a great length of time, there being at the same time a great number of small ulcers on their mucous coat. In other cases there is much

thickening of the coats of the colon without much contraction, the interior being covered with large rough ulcers, and the mucous membrane destroyed and hangs loosely between the ulcers.

Sometimes the ulceration is confined to the rectum only, there being only a few ulcers upon which the distress of the patient may depend.

The prognosis of dysentery is a mere or favourable when judicious and timely means are employed.

The first thing to be considered in the treatment of this disease in order to cut short its course and prevent the structural changes which inevitably take place in the mucous membrane of the intestine, if allowed to proceed, is to subdue the inflammatory symptoms, for the accomplishment of which, the lancet should be early and freely employed as a general rule. The practice of blood letting either general or

local, has proved efficacious in so large a majority of cases, that its general [illegible] may be recommended. The mildest cases seem to demand the application of leeches or cups to the abdomen which seldom fails to cut short the duration of the disease, and with the assistance of other remedies prevent the unfavourable results of it. The most successful treatment in the violent forms of this disease, is general bloodletting, with the application of leeches or cups upon the abdomen over that portion of intestine most diseased which is marked out by pain under pressure. This system of depletion with other remedies must be continued so long as the hard and quick pulse with tendency of the abdomen remain.

The next effort must be to relieve the bowels of their contents which prove a source of irritation if allowed to remain. The remedies which should be employed for this

purpose on cathartics, care being taken however to select the proper order of this class of remedies, as there are some which when employed may be followed by fatal results, these are drastic purgatives which by their griping and irritating the intestines excite a higher degree of inflammation, consequently adding much to the distress and hazard of the patient. In all cases therefore we should use laxatives or mild purgatives which will evacuate the bowels without exciting too much peristaltic action.

It is desirable generally to procure fecal discharges by the repeated use of cathartics, but this rule is by no means applicable to all cases; we should always enquire strictly into the history of the case, and if finding it has been preceded by diarrhoea, it is sufficient evidence that there is no accumulation of feces in the intestines that may prove a

source of irritation, and therefore the purgation should not be continued with a view of obtaining discharges of this character, in which it inevitably fails, but produces prostration, wears out the constitution, and defeats natures energies which should in all cases be sustained with great care, and renders the patient a subject unfit to stand the exhausting powers of the disease which are yet to come. These facts however do not lessen the value of cathartics in dysentery, nor prohibit their moderate use in any case, for they should always be employed to that degree which will keep up a gentle peristaltic action and prevent the accumulation of irritating substances in the bowels.

The sufferings of the patient in this disease, from excessive pain and want of sleep, seems to demand a remedy to counteract the exciting causes of these

distressing symptoms. Among the agents employed to fulfill this indication, there is none which deserves a more conspicuous place than opium. It mitigates pain by diminishing the morbid sensibility of the intestines. It does not counteract the action of cathartics as may be supposed, but unquestionably promotes their action by relieving spasmodic contraction of the bowels, thereby permitting their contents to pass freely. It may do an injury by being administered too soon, or before vascular action has been sufficiently subdued, therefore it is necessary that depletion should precede its administration, then it should be given in large doses, that its sedative influence may be exerted instead of its excitant which it produces when given in small doses. In the later stages of the disease however, it is more beneficially given in small

doses repeated at short intervals. It is generally in combination with cathartics or in form of dovers powder, when given to promote diaphoresis and procure sleep.

In most cases of dysentery probably we could not select a cathartic to answer a better purpose than castor oil. When the disease has not been preceded by diarrhoea, and there is a retention of the contents of the bowels, it may be given in a dose of one ounce combined with ten or twenty drops of laudanum, this should be repeated at proper intervals until its efficacy becomes manifest by sufficient discharges from the bowels.

Great benefit may be derived from the use of calomel in the treatment of this disease, particularly in that form known as bilious dysentery, when the circulation in the liver is retarded, the secretion of bile suspended, and there

in passive congestion of the hepatic veins and capillaries of the intestines, Mercurial stands at the head of all other remedies; it promotes the hepatic circulation, and biliary secretions, and relieves the bloody fluxes of this complaint. It may be administered in the commencement of the disease in a dose of five or ten grains and followed by castor oil, and then continued in small doses, combined with ipecacuanha and opium, in the proportion of two grains to two grains of ipecacuanha, and half a grain of opium, filled with gum arabic, to be repeated every three hours. It should be discontinued when the gums become slightly affected, unless the urgency of the case should demand its full influence on the system.

When the vascular excitement is not easily subdued, and the skin remains hot and dry, we should give

bitartrate of potash in doses of half an ounce repeated at intervals of four hours, and changed the mixture with tepid water.

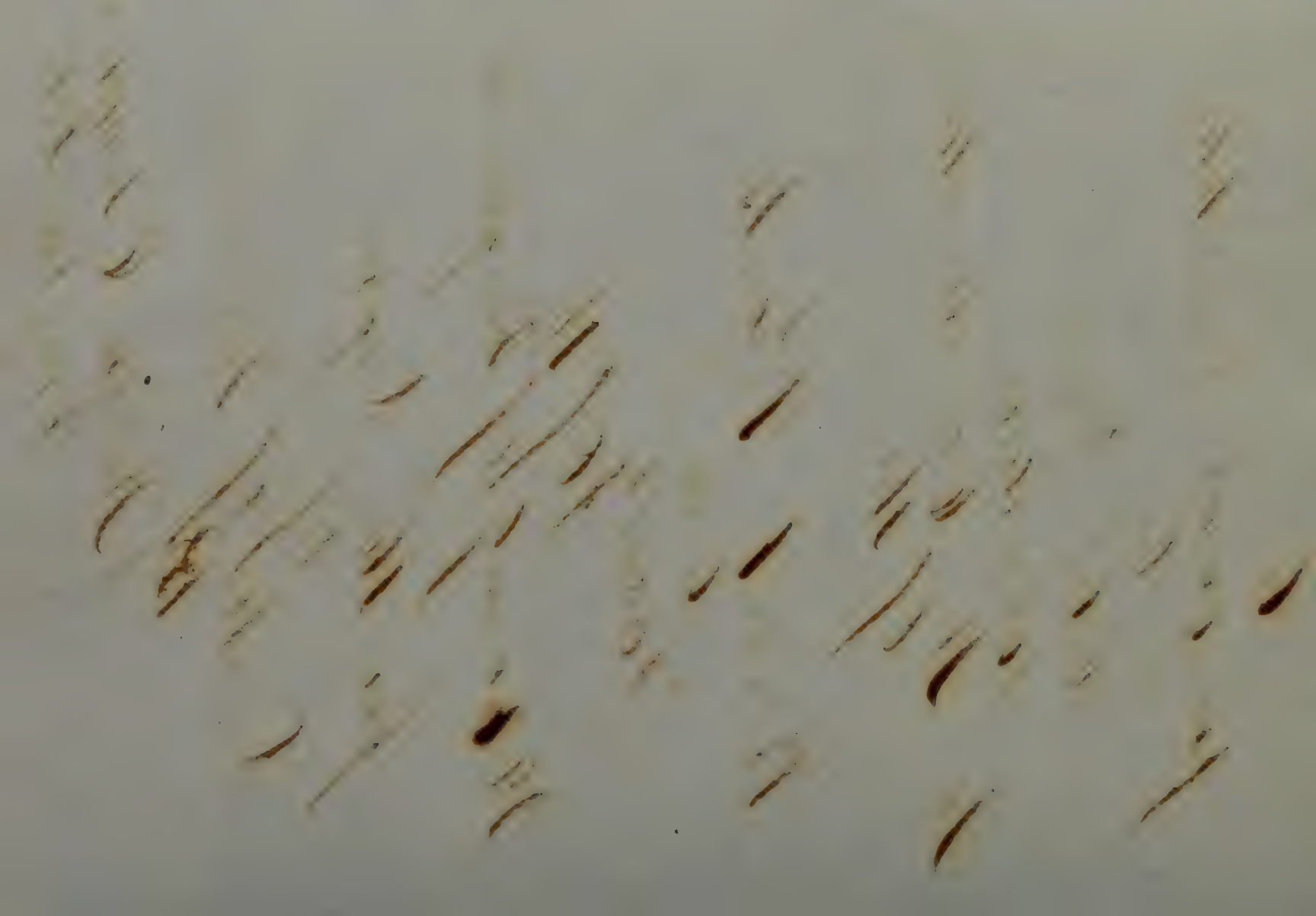
Injections are often highly beneficial in facilitating the action of cathartics, and soothing irritation of the mucous membrane. To two or three ounces of starch may be added two grains of opium dissolved in water and repeated three or four times a day if it be not too much trying to the patient. Acetate of lead may generally be administered in this form with great success, to five grains of which add thirty drops of laudanum and two or three ounces of water. The quantity introduced in the bowels should always be small as it is more likely to be retained. If however the bowels should be so irritable as to expel it immediately, two grains of opium may be inserted in the rectum and retained with benefit.

Means should be employed to convey a portion of the circulating fluids off through the skin in order to deplete from the blood-vessels, and lessen the amount carried off by the bowels. For this purpose diaphoretics are employed, such as the effervescing draught; tartar emetic; and ipecacuanha: dovers powder may be given at bed time to procure sleep and diaphoresis. The warm bath may be used with great benefit when there is much pain and tenesmus. When the employment of this is inconvenient, the abdomen may be covered with wet hot flannels, or a warm cataplasm.

The quantity and quality of food allowed to the patient requires great caution. The bowels should be kept as empty as possible so long as any inflammation remains. During the violence of the disease, the mildest diluents only should be allowed, and these in very small

portions at a time. After convalescence has taken place, the patient should be allowed only mild and unirritating food in small quantities, lest a relapse or tardy recovery should ensue.

An
Inaugural Dissertation
On
Scarlet Fever
Submitted
To the Examination
Of the
Provost Regents
and
Faculty
Of the
University of Maryland
For the Degree
Of
Doctor of Medicine
By
William E. Magruder
of Maryland
1854.



Scarlatina

At a very early period in the history of the science of Medicine, man, with a mind endued with the superior elements of an innate philosophy, traced with his characteristic [illegible], the operations of nature when subjected to the influence of certain observed circumstances, and by observing her actions under particular conditions, was enabled to deduce a system of laws, by which her actions are especially controlled and directed. Being guided thus by the regularity of nature's operations, the Nosologist was first induced to reduce the diseases of man to a classification or to restrict them in their characters to particular families

Cullen in his Nosology [illegible]
position, Sauvages, under the
classification, as [illegible] individuals,
having certain [illegible] to
[illegible] the other, and as having cer-
tain [illegible] relations, in the
time by which they are governed
throughout the whole term of
their progress and existence.
Having finished the [illegible]
[illegible] of these diseases, he
[illegible]
[illegible]
[illegible]
[illegible] which he gave the name of
[illegible]
were called Fevers, from their
[illegible]
[illegible] Class of
the other Fevers, such as
[illegible]

premonitory symptoms, by which the patient is warned of its approach, though it sometimes commences without the ceremony of any premonition.

The most commonly observed phenomena, with which the fever is ushered in, are languor and lassitude, rigors with occasional flushes of heat, pain in the back and [illegible] emetics. The fever is usually accompanied with a frequent pulse, flushed face, hot dry skin, tongue covered with a white or yellowish white pur, thirst and anorexia. Sometimes nausea and [illegible] are experienced, though are not common symptoms. There are also, sometimes present, symptoms of [illegible] us disturbance, as headach;

restlessness, morbid wakefulness, stupor, and even convulsions may occasionally be present.

There is always more or less irritation of the fauces, commencing generally with the onset of the fever, or a very short time after it has begun to manifest itself. On examining the mouth and fauces, these will usually be found a redness and swelling, indicating the existence of a goodly amount of inflammation in those parts. The tongue will be found to participate in the inflammation and though the tongue be covered with a thick fur its papillae will project through it, presenting an enlarged and much inflamed appearance.

The most important symp-

of the disease in the rash, relative to the usual period of the occurrence of which, and also as to its essential nature, authors have been disposed to cavil and dispute. It is now conceded by modern writers, that in the majority of cases when there are no untoward circumstances supervening on the commencement of the fever, that it may be seen on the second day of the attack.

The eruption usually though not universally, makes its appearance, first on the face, then on the neck and chest and lastly on body and extremeties, requiring in most cases about twenty four hours for its complete diffusion. On the inception of the rash, it presents the appearance of small red points resembling

in a striking manner the appearance observed after the bite of a flea.

These points rapidly unite, & in a few hours form by their coalescence, a continuous scarlet hue over most of the surface.

Sometimes, however, this confluence of red points is interrupted, and they present themselves in irregular patches over different parts of the surface, though are then generally diffused very regularly over the face and neck.

The redness occurs with greater intensity of hue about the flexures of the joints and in those regions which abound in cellular tissue and minute blood vessels. The color of the skin has been compared to that of a boiled lobster. It is this characteristic scarlet tint of

the surface, that caused the disease to be given its present name.

When the eruption has been pressed upon by the finger, it disappears for a moment, differing in this particular, together with its color, from the petechiae of Typhus Fever. The intensity of the redness is augmented if the patient be agitated by the appearance of any exciting circumstance and also during the exacerbations the fever, which circumstance is perhaps ascribable to a congested condition of the capillaries of the skin. The reddened surface with, an occasional exception, is perfectly smooth to the touch; though, it is said, cases do occasionally occur, in which the eruption is elevated on different parts of the body, more particularly on the abdomen & extremities.

There will also occasionally occur, minute pimples and vesicles on different parts of the surface.

The cutaneous affection is a constant source of annoyance to the patient, on account of the burning, itching and uneasy sensations which are experienced, to such a degree as greatly to interfere with sleep and repose. The occurrence of the [illegible] mitigate the febrile symptoms. Indeed they are apt to persist with a greater or less degree of violence throughout the entire progress of the disease. The pulse may vary considerably, though is generally more frequent than in other febrile affections. It has been observed to vary from 110 to 130 in minute, and in some instances, even higher. The force of the

pulse is rarely found to be proportionate with its rapidity; the relative feeblesses being one of the predominating characteristics of the pulse of Scarlatina. The skin, as in other fevers, is dry and hot, giving the sensation of burning, when the hand is applied to it, and the thermometer, when brought in contact with it, has been observed to stand at from 105° to 110°. There is frequently exacerbation of the fever at night, and not unfrequently restlessness and delirium are the accompanying results. As a general thing the bowels are constipated throughout the attack, though Diarrhoea and even Dysentery are occasionally present at the later periods. Irritation of the stomach is rather a rare occurrence.

The disease usually attains its height, in favorable cases, at from the fifth to the ninth day, when all the symptoms begin to assume a modified character; the rash to diminish in redness, the throat to loose its sovereign and scarlet hue, the tongue its coat, the pulse its frequency and to increase in strength, and sometimes there is added to the other signs of general amendment, some critical discharge, either from the bowels, bladder or skin.

As the eruption begins to decline desquamation commences. The cuticle is exfoliated in scales sometimes in flakes of considerable size. It is usually attended with considerable irritation and annoyance to the patient and is completed by the end of the [illegible].

The new skin is now in a very delicate and irritable condition in consequence of which the patient is exceedingly impressible to many influences which were previously inert.

The termination of the disease may vary much from that to which we have pursued it.

The patient may sink under the shock which the system receives at the onset.

If the patient survive the first stroke, he is still liable at any time to be cut down by the furious malady either by its attacking the brain and resulting in some fatal cerebral affection or by attacking some serous membrane connected with a [illegible] organ: or it may prove fatal by [illegible]tating its entire energy

on any of the important parts usually involved in this disease.

The average period at which death occurs, is supposed to be about the eighth day.

Almost pathologists of the present day are in the habit of describing three varieties of Scarlatina, viz. Scarlatina simplex, Scarlatina anginosa, and Scarlatina Maligna. This complication of nomenclature was adopted not from any supposed difference in the essential character of the disease, but from the manifest existance of distinct grades which imperceptibly run into each other and become lost in the common complaint. The first variety is denominated simple in consequences of its wanting the throat affection and of its presenting an ex-

-ceedingly mild character. Often the fever is so slight and the general disturbance of the system so unimportant that the patient does not find himself under the necessity of keeping his bed, frequently not more than a scarlet blush is observed on the face and neck. In other cases however it is more severe: the rash may be diffused over the whole surface of the body, the heat of skin and frequency of pulse may coincide with the same symptoms of Scarletina generally. Nervous affections sometimes occur as in other ~~affections~~ cases but with less violence.

In Scarletina Anginosa, the affection of the fauces is the predominating symptom. In the beginning of the disease, stiffness and soreness of the throat, with difficulty of deglutition are experienced. The eruption

is somewhat later in making its appearance than it is in the simple variety, and usually is far less extensive in its diffusion over the surface. The febrile symtoms are more severe than those of the preceding varieties, with a greater tendency to coma and delirium - The inflamation of the throat increases as the disease advances, and the Tonsils Uvula & Soft palate will frequently be found to be involved in the inflamation and of a deep red color. Dirty white patches resembling false membranes, will be seen on the Tonsils, and extending into the pharynx, sometimes they extend to the Larynx and give rise to the phenomena of Pseudo Membranous Croup. There is often to be inflamation in the cellular tissue - nea. the Parotid and -

submaxillary glands, which causes great obstruction of the external parts and embarrasses greatly the motion of the jaw: The internal parts are sometimes so swollen as to interfere with respiration and fluids, when attempted to be swallowed return through the nose. The mucous membrane of the nose is not unfrequently affected, so as to give rise to obstruction of the nostrils and subsequently to the discharge of a yellowish acrid fluid. A similar fluid is observed in the eyes which passes downwards into the throat, and is supposed to give rise to the irritation of the stomach, and to the Diarrhoea, which is sometimes present in in the advanced stages of the disease.

The fading of the eruption is latter

than in the simple form, and the fever and frequency of pulse usually continues after the commencement of desquamation.

The tongue loses its fur sooner than in the simple variety, though retains for a time its scarlet hue and roughened surface.

Scarlatina maligna, as would be inferred from its name, is the most violent form in which the disease manifests itself. It is marked throughout the course by a tendency, which causes it to be ranked among the most formidable of diseases occurring frequently with such extreme violence, as to overcome the system at once by its irresistable force, the patient being prostrated in the first

In cases in which the

system possesses sufficient energy to resist the first attack, the symptoms resemble those of the anginose variety, the chief circumstances from which its malignant character is inferred, being more violent pains in the back and extremeties, a great disposition to delirium and stupor, with diminished strength of pulse, the eruption not appearing earlier than the fourth day and being of a darker hue. The redness of the fauces assumes a more livid appearance than it does in the other varieties - As the disease advances, the pulse becomes more feeble and the surface less hot - In truth all the symptoms assume a more typhous character. The tongue, teeth & lips become coated with a dark sordes, hemorrhage

from any of the mucous surfaces may take place, diarrhoea sets in and frequently the patient will have involuntary discharges from his bowels, ulceration of the throat, and sloughing of different parts of the body is apt to occur, and frequently the patient collapses and dies before the end of the first or second week, though he may struggle along with his foe, untill at a later period, he sinks amid the distressing strokes of his malady.

There is still another form of this disease sometimes described by Pathologists. Scarlatina Sine Eruptione.

This variety is said to possess all the characteristics of the proper disease, in a very mild form, except the rash.

It is stated further, to possess the power of communicating Scarlet Fever to others. Scarlet Fever like other diseases which prevail epidemically, will improp with its character, those complaints which happen to occur during its prevalence, these simulating it to a certain extent, have been mistaken for the epidemic itself. To this circumstance, no doubt, is due the origin of this fourth variety; the occurrence of which in an individual, will probably not afford him protection against an attack of Scarlet Fever.

Few diseases will be met with leaving behind them such a number of evil results as does Scarlet Fever, and without great care and caution its sequelae are more to

be dreaded than the previous affection

After the subsidence of the disease the system is so apt to degenerate into a depraved or ataxic character and from which the patient is liable to be annoyed by various forms of dyspepsia and its ills.

The inflamation may extend to the organs of vision and hearing, so as entirely to destroy the functions of those organs.

The stomach and intestines are frequently left in a very much impaired condition giving rise to a Gastro Enteritis, and not unfrequently to a very obstinate Diarrhoea. But the most to be dreaded of all its sequelae is dropsy, which is of an inflammatory kind and to which the patient is most liable during

desquamation of the cuticle, and while the poor victim is in a delicate and irritable condition and what is of particular importance is, that this disease is most apt to supervene upon the mildest cases.

After death from Scarlet Fever, there are frequently no anatomical lesions discernible, particularly if the patient have died at a very early period of the disease. But, when death occurs at a later stage of the disease, there will usually be found a reddened and injected condition of the subcutaneous cellular tissue. The redness of the throat and Oesophagus are apt to remain, and sometimes an inflamed condition of the mucous membrane of the stomach and

also of the intestines. Various internal organs may be the seat of congestion though not being involved sufficiently often to justify our anticipating their being implicated in ordinary cases

Scarlet Fever is doubtless caused by a specific poison, probably of animal origin and capable of being communicated from one to another through the medium of the atmosphere, though some deny the existence of such a property.

The disease prevails epidemically and appears to be confined to very narrow limits. The fever varies much according to the character of the epidemic, assuming in some instances an inflamatory character, in others an asthenic or typhoid. It is the opinion

of some that the person generated in one variety is capable of inducing the others, under circumstances favorable to such result.
It is the opinion of our able Professor, that generally, each variety has the power of impressing its offspring with its own likeness.

Scarlatina is said to be a disease of children, from the fact of its occurring oftener in them than in adults, age however, seeming not to possess the power of resembling one from its invasions, though it may be supposed so by some, since most persons who possess any susceptibility to the disease, are apt to contract it while young and in virtue of the law of nonrecurrence, there are few adults possessing such

susceptibility.

The period of incubation is variable from a few days to several weeks. It has been only since the middle of the sixteenth century, that Scarlet Fever has been regarded as a distinct disease from Measles. Previous to its recognition by Ingrassias, it had eluded the observation of the most discriminating minds, whose nicety of discernment commends itself to the approbation of the modern devotees of Science. The symptoms of these two diseases being liable to be confounded with each other, we will mention the points whereby they can be distinguished from each other. Measles almost invariably sets in with catarrhal symptoms, with redness of eyes, coryza &c. Measles exhibits a great tendency to be complicated with

Bronchitis and Pneumonia — Measles is unaccompanied with the sore throat which in a greater or less degree is present in Scarlatina. The character of the eruption is quite different in the two diseases, that of Measles being more elevated above the surface and presenting a darker hue and is not diffused so regularly over the surface. In Scarlatina the rash appears on the second day in Measles on the fourth.

There is probably no disease more uncertain in its results than this, and consequently none concerning whose issue the medical man should more studiously guard himself in the formation and expression of his opinion. The apparently mildest cases not unfrequently assuming the most violent symtoms and causing death in a short time with the most

distressing symptoms. In judging of the probable termination of a case reference should be had to the character of the epidemic and to the constitution of the patient. The late appearance or retrocession of the eruption, with continued delirium or coma, a livid color of the eruption, gangrenous appearance of the fauces feeble pulse, sloughing and gangrene of the hips & extremities are very unfavorable symptoms. The absence of the above mentioned symptoms and a gradual subsidence of the disease will render the prognosis favorable.

The treatment may be comprised in the three following indications, viz: to reduce the vascular excitement; to obviate or releive any local inflamation and to support the sinking powers

of the system. In fulfilling the first indication, we are to consider first the propriety of blood letting, which is admissible when there is great excitement and force of the pulse. An emetic in the beginning is supposed to modify the attack, this to be followed by a mercurial and this by saline purgatives. Leeches and fomentations will usually meet the second indication.

Gargles of Capsicum, acetate of Lead and Chlorides of Potass & Zinc are very efficient in malignant cases. The last indication is fulfilled by Wine, Brandy, Ammonia &c.

The treatment for the sequelae is modified according to the circumstances attending them.

An Inaugural Dissertation

on

Hysteria Nervosa.

Submitted to the Honorable Regents

and the

Faculty of Physic

of the

[redacted]

for the

Degree of Doctor of Medicine,

by

William H. [redacted]

of

Maryland

Jan 1854

To

Dr Samuel Chew,

Professor of Prin & Prac of Med.

in the

University of Maryland,

this is

Respectfully Dedicated,

as a mark of respect, for his

high standing as a Preceptor & Teacher;

and, as an ~~for~~ the

acknowledgement for the many

useful and instructive lessons,

received from him.

And also for

his christian example,

by his friend

The Author.

Typhoid Fever

This is a fever, which may be supposed to be a fever of a continued form, running a definite course, and distinguished from its kindred Typhus in certain respects, which will be noted in their proper places. This name, seems to me, to be an appropriate one for this malady, for there are many diseases which present a typhoid character in some part of their course. Entire, would appear to be more suitable, pointing out its true nature, much better than the common But being more frequently used, I will also employ it. This disease often commences in an insidious manner, especially in those of a robust nature, and those preceding health were good. It more frequently com-

mences in a slow and insiduous form, that it is hard to fix the day of its onset. The former, commences with a decided chill, followed by the usual symptoms of fever.
The latter by weariness, lassitude, head ache, loss of appetite &c. Both present the same symptoms, when they have fairly set in. The symptoms, may be divided into those that appear in the first week, those in the second and into those of the third week. It will not always show its self in such a form. We may find sometimes the symptoms of the 2d and 3d weeks in the 1st, and vice versa. Those of the first week. Chills on rigors, flushed face, skin hot and dry, tongue coated and clammy, pulse quicker than natural, amountaining to between 90 and 110, and not so strong. Urine charged in quantity, being more deficient.

quality and color; [illegible], or if not the bowels are easily acted on by mild aperient, head ache, but not severe in this stage, slight metiorism of the abdomen and gurgle on pressure. Expression of countenance dull, drowsiness and sometimes delirium. Respiration short and hurried. Cough and a little bronchitis may be found. These symptoms continue and gradually increase. In the second week, the pulse becomes quicker and more feeble, greater delirium, amountaining sometimes to coma, Tongue dry and tremulous, sordes on the teeth and lips, subsultus tendinum, abdomen more tympanitic, diarrhoea more propure, and added to these rose spots, petechiae and sudamina, which generally make their apperiance in this stage. Being now much debilitated, the patient generally lies on his back, and often slips down to the foot of the bed

Finally, in the [illegible] stage of an [illegible]able termination is to take place; the pulse gives way, and becomes very frequent and fluttering, or slow and hardly perceptable, surface bathed in a clammy sweat, and the extremities cool or cold, hiccough occurs, and the abdomen greatly distended, the countenance hippocratic, and the patient goes off without a struggle. The reverse of this, will take place if the case is to terminate in recovery. All the preceding symptoms, will abate and convalescence speedily takes place, and emaciation, becomes more evident now than before. Sometimes the recovery is slow and protracted, and if particular attention, is not paid to the patient, he will very apt to have a relapse, which is nearly if not as bad as the real disease. These symptoms, are usually but not always found, in this disease

at the [illegible]. There are other symptoms such as epistaxis, Hemorrhage from the bowels, pains in the abdomen, and dullness and acuteness of hearing, which I have not [illegible], which may help the diagnosis. The disease often runs a mild course, with little or no prostration of the vital powers, or it may run a violent, protracted and dangerous course, so much so as to have no hope of recovery by skilful and attendance. It is more mild in some seasons than others, being so mild one year, that many all attacked get well, and in another year nearly all die. The disease, generally lasts 20 or 30 days; seldom continue beyond 60 days. It is sometime fatal in the first week, but rare; it usually ends in the 2 or first part of the third week. The patient may recover at any time; but usually in the [illegible] of these week.

The Lesions after death, are various and numerous. There is scarcely an organ in the body, which is not changed somewhat, in this malady. They may be divided into those that are essential, and those that are accidental. The essential, are so called, because, they are almost always found in this disease, and seldom or never in others. The Glands of Peyer, which are situated, in the ilium, are found ulcerated in a more or less extent. Those situated near the ilio-cæcal valve, more so than those at a distance. They are sometimes so little affected, that it is hardly perceptable, and at other times so much so, that perforation takes place, and sets up that fearful malady Peritonitis, which is almost sure to end in death. These ulcers, are sometimes found cicatrised, thereby, leaving us room to hope, the case may recover from perforation. These glands, may be either hard or soft

or both. Their number is various, from one to thirty; though generally about 100 or 12 in number. They are found, ulcerated as early as the sixth day of the disease. Perhaps they are changed sooner, but no opportunity, has been afforded to know the truth of the assertion. The mesenteric glands, are reddened, enlarged and softened, and sometimes pus is found. Those opposite and nearest to the glands of Peyer, are mostly affected. They are found changed about the third week, sometimes and mostly before that period. The accidental, are those, which may be found after death, but not always. The solitary glands, may be found in the same way, as the glands of Peyer, reddened, softened and ulcerated. Other parts of the alimentary track, may also be found inflamed, from pharynx downwards but as I said before not always. The Heart, Liver and spleen, are found sometimes enlarged, and softened.

The Larynx, trachea and the bronchi, are also found sometimes affected. The Lungs, are found more or less diseased in the most depending parts. The essential nature of typhoid fever is not positively known. The cause of this disease, seems to be predisposing and exciting. The former, are various. Old age, generally escapes it, whether it is because they have had it or no, we cannot say. It being a fact, that it only attacks a person but once, would strongly lead to that opinion. It seldom attacks persons, over thirty five. yet we do find, it in persons over that age. It is found in youth, and in all ages, up to the age just mentioned. Those beteen the ages of fifteen and twenty five, are mostly its attacants. It attacks all societies in life, the rich as well as the poor, the well fed, as the poorly clad;

The exciting causes, are thought to be fatigue, both of body and mind; vicissitudes of weather, and insufficient quantity of food, and clothing. Yet, we cannot say, that these do give rise to it. Some believe it is contageous, and others do not. If it is, it must be very little so. It is well enough, to fear that it is, by so doing we will not be apt to run the risk, of spreading it abroad. It is sporadic, appearing here and there in a neighborhood, giving the idea, that the air has something to do with it, as it has in malarious districts. New commers in a place, are said to be more apt to take it than old inhabitants. The changes found after death, are not primary; but appear after the disease has run on for some time. Hence they cannot be the cause of the malady

The diagnosis, is not difficult to make out sometimes; other diseases being so much like it. Yet a little pains and patience may always open a way to tell it. The disease, mostly favours it, is its kindred affection, Typhus. The differences between them, are the following. The latter, is more sudden in its onset; the temperature of the surface hotter, hue of the face darker, the eyes more suffused. The bowels are constipated, in the latter, and loose in the former. The first, requiring astringents, the latter Cathartics. Tympanitic distention of the abdomen, Gurgling in the right Iliac region, and epistaxis, common in typhoid, and rare in typhus fever. Delirium, more common, and earlier in the latter than in the former.

Rose spots are, found in the former; and petechiae in the latter. The one appear not before the second week, the other generally in the first. Bronchitis, in the former, pneumonia in the latter. The one attacks the young and reduced, those over 35; the other all ages. The one, found in all conditions of life; the other mostly in the poor, badly clad and, ill fed part of the population. Typhoid is generally sporadic, Typhus epidemic. The incubation of the one is shorter, the other not so. The former is longer, as to its course in duration, than the other. The one, lasting about twelve; the other ending in the last of the second or the first of the third week. Bleeding more required in the former than

in the latter. The Glands of Peyer and mesentery glands, are diseased in typhoid, and not in typhus. Remittent, fever is another disease, which is sometimes confounded with this disease. It may be distinguished, by its more decided and regular remissions, and a tendency, to end in intermittent, and the absence of the symptoms of typhoid, such, as diarrhoea tympanites, epistaxis, nonecoloured spots, dingy complexion, stupor and dullness of expression. When remittent, run down into a continued form, it is hard to diagnose it from typhoid. It is however done, by inquiring into the preceding history of the patients, and the changes after death. The glands of Peyer changed in the one and not altered in the

Fev. Diseases of the brain, some
time resemble this malady, but
a careful investigation of the
symptoms, will generally clear
up the case. Diarhoea, and dysentery,
are other diseases, which are
required to distinguish from this
disease, which are sometimes ve-
ry difficult to perform; yet as
I said before a close observance
of the symptoms present, will
enable us to put the malady
in its right place. The progressing of
this disease is dreadful for the
cases that seem the mildest, some
times terminate in death; and
those that appear the most dan-
gerous, will end in good health.
The cause of death, in the milder
form of the disease, is generally
perforation of the intestines, which
is more common in this form,
than in the more severe.

We are not to give up all hope of recovery, when this has taken place; for there are cases, on record which done well, afterwards. Nature, our best friend, will endeavor to counteract this evil by throwing out coagulable lymph, which will prevent the pouring out, the contense of the alimentary canal, into the great serous sack. No case, should be hooked upon as absolute desperate, as the most severe cases, are known to get well. It is only in articulo mortis, that we should give up all hope of saving our patient. The average number of deaths, is about one in fourteen. Some seasons, it is more fatal as one in three. then, again it is not so fatal as one in twenty five. It is more favourable, under the age of twenty, and in good constitutions.

When the pulse, does not rise above one hundred, and ten, in the first two weeks, is another good sign of recovery. Some of the most unfavourable symptomes, are constant and violent delirium, profound coma, excessive subsultus tendinum, rigidity of the limbs, and eyelids, hemorrhage from the bowels, great diarrhoea, involuntary evacuations, extreme frequency and feebleness of pulse, and great prostration, great abdominal distention and collquative sweats. The reverse, of these may be denoted to be favourable signs. Yet as I said before, there will often turn out, to our surprise, when and what we little expected. [illegible] runs a certain and definite course, and cannot be checked, unless great hazard to the patient,

and also sometime to the attending physician, It is best I think, to employ the expectant plan of treatment. That is to let the disease have its own course, and to help off all obstacles, that will prevent nature in restoring the patient to his usual health. For this end, there are four indications, which, will be found necessary to employ, in nearly all cases of this disease. The first indication, is to remove all sources of irritation both body and mind, internally and externally. For this indication, we should put the patient, in a large and well ventilated room, neither too hot or too cold. It should be a room, exempt from noise, and not too much light, as these are very much annoyances to a patient that is delirious under the malady.

cherants, should be used when not too much diarrhoea. They ought to be of the mildest kind, as we know that the bowels are easily acted upon, such as a few grs of calomel, magnesia, rhubarb, castor oil &c. If sourness of the breath is present, indicating acid in the circulation, magnesia, is the best one of those above mentioned, or one of its compounds. In the latter stages, rhubarb or one of its preparation, will be the appropriate cathartic. These, should be continued, throughout the case when needed. If pain, a few grs of opium, or one of its preparation may be given, along with the aperient. If the stomach, is too irritable, to give them by the mouth, the same and may be obtained by enema. In the commencement of the disease, if the stomach is loaded with foreign

matter, and in this stage the use of emetic of ipecacuanha, will do a great deal of good, both in evacuating the stomach, and causing a diaphoretic effect. The second indication, is to reduce all paroxysmal excitement. For this end, if the pulse is strong and full, face flushed, the surface hot, and a determination of blood to the head, general bleeding is good. The blood, must be taken in the standing position, and too much must not be taken; as the disease is of a protracted kind, and needs all the strength the patient has, to bear him through the malady. This kind of bleeding, can be performed, in the early part of the disease, for the patient is too debilitated at a later period, to require it. Local bleeding, may however, be performed at any

time, if the patient is not too ex-
austed, when inflamation of an
organ is set up. This may be done,
with both leeches and cups, and at
the same time, if the patient re-
quires it, we may give stimulants
to support the system. When
cups or leeches, do not do, then
blisters, may take their place.
We must be careful, in useing
these antiphlogistic agents, and
not to employ them too much.
Mercury, in small doses may
be classed with these agents, as
it draws the blood to the pri-
mal viae, and thereby relieves
congestion, in a certain degree.
Cold, employed internally and exter-
nally, is also good; internally ice
and ice water. Externally, it should
be done by sponging, carried out,
so far as the patient feels re-
lieved by it; and stoped as soon

as the patient commences to feel chilly. Refrigerant diaphoretics, may be useful, in the course of this disease. They should be made use of, from the commencement. Citrate of potash, or some other similar compound, may be found, to be very agreeable to the patient. If the stomach, is not irritable, and the pulse tolerably full, tartar emetic, may do good, but if the stomach is not easy it must be with held. If there is great debility, sweet spirits of nitre, will be good and if the stomach is out of order, and the nervous system is deranged, opium or some one of its preparations may be combined, to allay it. Lemmon ade and some other acids are also, good if there is no diarrhoea. If diarrhoea is present small

doses of opium are good. At night, if the patient is deprived of sleep, and a determination to the head or stupor do not contraindicate the remedy, a small dose of Dover's powder at bed time, or opium and ipecacuanha, will be found to procure a refreshing rest. The third indication, is to employ stimulants, and tonics, when the powers of life begin to flag. They should be given, early in the disease. It is better to begin a little too early, than too late. The diet, should be nutritious, as chicken soup, beef tea &c. If the pulse is very weak, wine whey, wine and water, brandy and water, carbonate of amonia &c may be found to answer. The employment of stimulants, ought to be governed more by the actions of the heart, than by the pulse at the wrist.

If the actions of the heart, are weak, although the force of the pulse is strong and full, then stimulants are advisable. If on applying the ear, to the chest, we find the impulse and the first sound of the heart, weak and feeble, then we also administer stimulants. Oil of turpentine, will be found good in the advanced stage; if the tongue is dry, and the distension of the abdomen, continue to be prominent. It should be given, in an emulsion, as with the syrup of tolu, which disguises the taste a little, and if pain is present, a few drops of laudanum. As a tonic, one of the preparations of cinchona, will be found to answer best. Sulphate of Rumia, in two or three grain doses, every 2 or 3 hours will be

sufficient or one of the salts of iron in small doses. The fourth and last indication, is, to counteract all complications and obstacles, that arise from time to time, in the course of the disease. If a determination of blood to the head, causing pain, cups on the back of the neck, and blisters, and also leeches to the temples, and cold to the head. The hair, ought to be shaven off, or thined, as this would give great relief, of itself if nothing else is applied. As the hair, will generally fall off after the fever subside, the patient will readily submit, when he is made acquainted with the fact. The cold, should be applied as long as the patient derives any advantage from it, but when it causes chillness, then it must be [illegible]

continued. If coma, supervenes, a blister [illegible] be put on the [illegible] calf, neck, or arm, sinapism, to the lower extremities, and hot pediluvia. If epitaxis occur, it is best to let it continue for some time, if it is not too exausting, for it will do good, if it is early in the disease. If it is exausting the powers of life, by being too profuse or too late in the disease, it is well to stop it by cold, to the neck, and back, or some mild astringent, applied to the bleeding part. A few grains of alum, will be found to check the discharge often. If the preceding applications be found, not to answer, then a pledget of lint, saturated with oil of turpentine, will be sufficient, to stanch the hemorrhage.

of hemorrhage from the bowels, a [illegible] over the [illegible], and acetate of lead internally, will suffice. If the pulse is weak, and great distension of the abdomen, a flannel cloth, with turpentine placed over the distended part, will be found to do great good. If diarrhoea is profuse, it may be checked by acetate of lead, or some other mild astringent. It will not do to stop it at once, but it must be done gradually. Chalk mixture is good, especially when acid in the stomach. If nervous disorder is present, causing delirium and loss of sleep, camphor water and morphia will do good, and opium, it self or any of its preparations. If perforation of the intestines take place, the patient must be kept still and on his back, and large doses of opium,

should be given. This is all we can do, for this dreaded and dangerous accident. If spasmodic contractions of the diaphragm or sinfultus occur, a sinapism over the pegastrium, sometimes [illegible] sote, with syrup of tolu, will be found to do good, but the best, will be found, to be a few drops of chloroform internally. The surface of the body, should be watched from time to time, and care should be taken, to prevent the occurrence of bed sores. If the skin present redness, the part should be bathed from day to day, with brandy, and if severer, should be covered with lead plaster or colodion. To prevent them, is far better, than to cure them when they have shown themselves. To do this, the patient should be moved

about now and then. Pillows, and mattresses, should be fixed that they may relieve the most depending parts. The bladder, should be watched from day to day, and if distended with urine, it should be relieved with the catheter. The diet, in the begining of this disease, should be little on none, and it should be of the farinaceous kind. In the more advanced stage it should be more nutritious, such as chicken broth, and beef tea, and not to have but little of it, at a time.

An

Inaugural Dissertation

on

Pneumonia

Submitted to the examination

of the

Provost, Regents, & Faculty of Physic

of the

University of Maryland

for the

Degree of "Doctor of Medicine"

by

Augustine Demetrius Gale

of

Pennsylvania

1854

To

William. E. A. Aikin. M. D.

And

Samuel. Chew. M. D.

Gentlemen.

In dedicating to you the enclosed Dissertation on Pneumonia, I beg you to receive the assurance of my profound respect, and the unfeigned gratitude entertained towards you, by

Your Obt. humble Servt.

A. Demetrius. Doyle

"Pneumonia"

In conformity to those equally binding attributes of human society — law and custom — which has rendered it obligatory upon candidates for degrees, to prepare a thesis for the inspection of the Officers of his "Alma Mater". I proceed to the fulfilment of that time honoured custom. And I here take occasion to remark, that I do not flatter myself with sufficient belief, that I have in my power to produce any thing new, or to revive what is neglected. I only presume to give a pledge, which all should give, and also redeem in the course of their lives — diligently to observe and to give publicity to what is worthy of remembrance. For as on experience the structure of the "healing art" is reared, so its greater extent has, and will give corresponding stability.

Amongst the perpetual succession of revolutions which agitate the empire of mind, every pursuit claims its share in the general vicissitude. Nothing is stable, nothing is permanent, all are alike impressed with the common character of instability. Theories & systems which at one period seemed so firm and fixed that they well might defy the arm of time, have been after a short lapse hurled down, and a little after become forgotten & unknown; whilst others, then non-existent, even in fancy, have arisen upon their ruins, flourished for a space, and again in turn have sunk into the all-receiving tomb of oblivion, yielding to others more rational. While thus all our philosophies & creeds of every grade are making common cause for the benefit of humanity, shall we whose especial province it is to explore the structure, elucidate the functions, and remedy the defects or improve the constitutional energies of man himself, keep ignobly aloof from the general amelioration?

Shall we the professed benefactors of our brother man, alone remain supine and indifferent, whilst all others are strenuous in the general cause of philanthropy? Shall we continue to sit with folded arms proudly content over the labours of our fore-fathers and proclaim to the world that there is no room for improvement in our profession? Can we whom every days experience painfully impresses with the imperfection of our art, in its practical inefficacy, raise ourselves barriers to its extended cultivation? Or shall we persevere forever the contented dupes of the folly & absurdities which have been handed over to us for science, and still preserve the humble subservient posture of gaping recipients of foreign or obsolete professional commodities, and never be stirred up to a single effort to help ourselves out of the exhaustless storehouse of nature? Diffidence or modesty often restrain in the beaten track & prohibits the indulgence of any train of thought which may militate against the principles in which they

have been instructed & to which they have been accustomed to bow in filial reverence. Those who may have conceived new ideas, are often intimidated from giving them entrance, from a dread of appearing singular or presumptive. From these & other alike efficient causes we are forced on in the customary rotine. If all were thus fastidious there would then be an end to all improvement, but happily there occasionally arises some with enough of hardihood to dare the worlds sneers or its own advantage.

With these remarks premised, I proceed to the consideration of "Pneumonia".

It is necessary to determine what the disease is, what are its causes, its symptoms & its progress; its diagnosis, its prognosis, and its treatment.

What is Pneumonia?

It is inflammation of the substance of the lungs, and that inflammation may be slight circumscribed, or

severe and diffused. And as the inflammation advances marked and obvious changes take place in the substance of the lungs, so that it has been customary to divide Pneumonia into 4 stages for the better understanding of the changes wrought in the lungs by the inflammations, and answering to 4 well marked degrees or stages of the inflammation. We have 1st the stage of Engorgement, 2d of Hepatization, 3d of Purulent Infiltration, 4th of Resolution.

As the symptoms can best be understood after the Anatomical lesions have been given, I will therefore defer speaking of the Symptoms until after I have treated of the Pathological lesions

1st The stage of Engorgement. In this stage the lung is engorged, or infiltrated with blood, or blood & serum, and its specific density is very much augmented — but still floats in water. Crepitates less than in health under pressure, and pits beneath the finger. If we take a knife and cut into it we find

the lung of a bright red, and a frothy, bloody serum flows out, and we may even find some hard points indicative of hepatization.

2d. The stage of Hepatization. The lung has now lost its crepitons fell under the finger. The weight of the lung is considerably increas-ed, having now about the weight and consis-tence of liver, and readily sinks in water, un-less a large piece is thrown in when it will swim being buoyed up by the amount of air yet left in the lung. If a section be made it is found from a violet to a deep red brown and sometimes reddish brown, the cut edge will be of an irregular mottled appearance. Dissec-tion of the lung in this stage, bear a great sim-ilarity to the liver so that it is called hepati-zed. A little purulent frothy fluid may be scraped of the incised lung with the knife. It does not collapse when the chest is opened and exposed to the air. The changes are not generally largely diffused, and in infants the lobules may be affected, giving Lobular

Pneumonia. These changes in children are probably not as frequent as has been thought, being often a collapse, & not a solidification of the lung. In the red stage, the lung is more friable & more easily crushed than in the previously considered stage.

In the 3d Stage, that of Purulent Infiltration. The lung is generally of a livid colour or yellowish gray appearance called sometimes gray hepatization. We find spots of yellowish purulent matter, & these spots gradually coalesce, and at length the whole lung assumes a yellowish or lemon colour, & when cut, particularly in young persons, a viscid whitish yellow purulent matter exudes. The substance of the lung is softer, & more easily broken down than in the 2d Stage.

In the 4th Stage we have Cavities, but it is of exceedingly rare occurrence, & when they do occur, they are generally small. Tuberculous Vomicae have no doubt often been mistaken for abscess.

The inflammation in pneumonia genially commences in the lower lobes & extends upward, so that different stages of inflammation may be found in the same lung, as for instance the lower part of the lung may be in the stage of purulent infiltration, the middle portion may be hepatized, and the upper part may be in the stage of Engorgement — The stages are in fact often more or less intermingled. The mucous membrane of the bronchi is in the early stage red — inflamed, in the 3d stage it is generally pale or dark violet. — The bronchial glands are also often enlarged, inflamed & softened.

Pneumonia is generally rapid in its progress, and its duration varies much. The hepatization may last 7 days, or in weak, and broken down constitutions, may end in 24 or 30 hours, and the duration of all the stages, is influenced by the treatment & many causes. The hepatized

lung may be prevented or very much retarded by medicine.

The local symptoms of Pneumonia are Pain, dyspnoea, cough & expectoration —

The pain varies, sometimes though rarely absent, the pain generally depends on the accompanying pleurisy, and is more or less severe, according as the pleuritic complication is slight or more extended. The pain is usually much more severe in the early stage of the disease, gradually subsiding as the disease advances, & ceasing altogether before the termination of the disease. The patient most frequently complains of the pain a little below the mamma and generally a little to the outside. The disease is most frequent on the right side, with Children however it is mostly on both sides. The pain & disease will usually be found on the same side, but sometimes this does not obtain, the disease being in one side, the

pain in the other. The pain for the first 24 hours may be sharp & lancinating afterwards more localized - confined to spots - and dull and aching. The pain may be aggravated by many causes - by position - by pressure made upon the diaphragm - by a full inspiration - by percussion & by coughing. In primitive pneumonia, the pain even from the beginning is usually very slight.

The dyspnoea generally varies according to the extent of the inflammation (though not always) and it may, or may not be severe. If the inflammation is small in extent, the respiration will not be much increased, and vice versa. If the inflammation is extensive, the respiration will be very much accelerated & irregular, and we will have what is termed "thoracic asthma" or elevation of the chest, the breathing being performed entirely by one side of the chest. As the disease advan

-ces the act of respiration is performed al-
-most entirely by the action of the dia-
-phragm & abdominal muscles— the patient
restricting the motion of the ribs on
account of the augmentation of the
pain produced thereby. The breathing
is generally much quickened when the
patient is in the horizontal posture.
The violent effort at inspiration is made
in order to supply the suspended func-
-tions of the part of the lung rendered
impervious to air. It is thought that
the breathing is more difficult when
the patient lies on the sound, than
on the diseased side. The difficul-
-ty of respiration, and the dyspnoea
synchronous with it, will depend
very much upon the seat of the in
-flammation— the symptoms attending in
-flammation of the apex of the lung, will
be very much more severe than inflam
-mation of the base. In adults requira

-tion may be 30 per minute – in children it may be 60 – 70 or more in the same period, & the degree of dyspnoea is marked by the action of the alae nasi.

Cough is generally present – cough of a short single effort – slight – suppressed, and not paroxysmal and usually begins in 12 hours from the commencement of the attack – It may be absent but this is very rare.

Expectoration is ... always present – but is very rarely absent – it is so when the inflammation is central and in the upper lobe. It consists at first of mucous and in time this becomes viscid transparent – yellow – rusty – brick dust colour. This appearance of the sputa so characteristic of Pneumonia does not generally obtain until the 2.d or 3.d day of the disease, as there is in general little or no expectoration in the outset of the disease, and what is, is generally mucous.

If the matter expectorated flows along the sides of the vessel which contains it, when reversed, we have reason to believe that the inflammation is yet in its first stage, unless some other circumstance should contra indicate the stage of engorgement.

The tenacity of the matter expectorated is sometimes so great that we may reverse the vessel which contains it, without its being discharged, though it may even yet beneath the vessels mouth. The sputa is generally mixed with bubbles of air.

The rusty appearance of the pneumonic expectoration is occasioned by an intimate mixture of blood & mucus. The sputa may remain of this colour for 2—4 & in some cases though rare for 14 days. The sputa is almost diagnostic of the disease; / we may however have this colour in acute bronchitis, & in the expectoration after Haemoptysis, being the exceptional cases—/ It is sometimes of an orange hue

Or greenish and thin, sometimes dull brown: generally when there is purulent infiltration sometimes it continues white, glutinous, and transparent. In a later stage it sometimes becomes thinner assuming the appearance of prune juice - or liquorice juice. The liquorice appearance of the sputa, indicates that the disease is passing into suppuration and is of bad augury.

Acidity & transparency are however its prominent characteristics. The quantity expectorated averages from ℥ss to ℥iv in the 24 hours. As the disease passes in to the 3.d stage, the expectoration becomes muco-purulent.

Inflammation of the lungs is usually ushered in by chills or horripilations, followed by febrile excitement. The pulse is usually full, hard, and frequent, from 90 to 140 or even 150 per minute. The disease is distinguished by the great, and early prostration or debility.

pain in the side, cough, and dyspnoea gener-ally soon come on, with headache, lassitude, nausea, & uneasiness. In the late stage the pulse often becomes small & feeble. The com-plexion or hue of the patient varies very much, early it is often vivid red, later liv-id-dark- sometimes bluish - and some-times there is a circumscribed flush on the cheek, & usually on the cheek of the dis-eased side. sometimes both cheeks are flushed. Sometimes the invasion of the disease is characterized by catarrhal symp-toms- which may last for several days before pneumonia is manifest. Sometimes the disease begins obscurely without pain or fever, this generally obtains in secondary pneumo-nia - but may be known by the great depress-ion & by the physical signs.

Diagnosis - This is made by the character of the sputa - the early debility - rigors - fever - & the physical signs. Early in the disease the respiration is rough - rude - owing

probably to the inflammation producing a dry condition of the respiratory organs, and we have crepitant Rhonchus which is indicative of the 1st stage, but is sometimes, though very rarely not heard/as for instance where the inflammation is central / that the cells or Nerves between the seat of disease and the ear/ When we hear the sound, we may be pretty certain of pneumonia, but when not heard, we cannot be certain that there is no pneumonia — as there still may be pneumonia. There is generally no alteration on percussion during the 1st stage or if any a very slight degree of dulness. The Crepitant rattle of this stage differs from Oedema of the lungs, by the rattle being dry, which is not the case in Oedema. The sound elicited is called crepitant, from its resemblance to the sound produced by throwing salt on hot coals — It resembles the rustling of some hair between the fingers, held in close proximity to the ear. In the 2d Stage /Hepatization/ there is gener-

perfect dulness on percussion, by applying our ear to the patient we will hear bronchial respiration, which is [illegible] produced by the air passing through the larger bronchi which are still pervious, the [illegible] being no longer permeable to air. Sometimes fine crepitation is heard with the bronchial, particularly if you make the patient take a deep inspiration, or cough, this is owing to the 1st & 2d Stages coexisting at the same time.

At this stage of the disease an other remarkable phenomena occurs, it is the alteration which the voice undergoes, this modification of the voice has been termed broncophony, it seems to be occasioned by the air being no longer able to penetrate farther than the large bronchial tubes, so that the voice of the patient is conveyed to the listeners ear, through the solid lung & becomes very much modified thereby. The voice sounds very much like one speaking through a brass tube. By placing the hand over the [illegible] of the lung affected, & [illegible]

the patient to take a deep inspiration or to cough, or to speak, we can feel a greater vibration of the walls of the chest than in health. In subsidence, when the disease has gone on to the 2d. Stage, the lymph becomes absorbed giving us subcrepitation a modification of the Crepitant rhonchus, The Crepitation redux is more loose & moist than the original, & not in puffs, owing to the more fluid condition of the secretions, When the vesicular murmur begins to be heard it is, and continues for a long time more feeble than in health, and the dulness also remains for a long time on percussion. The dulness on percussion is a usual concomitant of the bronchial respiration. If the case continues to convalesce we have at length a cessation of the bronchial respiration and voice, and the natural respiration again begins to mingle with, & at length entirely supersedes the crepitant rattle. But on the other hand, if the disease continues to advance, auscultation for a [illegible]

cannot furnish us with much information. We cannot determine thereby whether the lungs remain in a hepatized condition, or whether the disease is advancing into the 3d stage. But as the [illegible] advances, and the [illegible]-stance of the [illegible] of length gives way, and a portion of it is [illegible], and air rushing into the vacuum created, will give rise to large gurgling crepitation. If Abscess may have formed & [illegible], we will have a gurgling rale; if liquid is contained, if it be empty, [illegible] and cavernous respiration, will be the diagnostic signs.

When pneumonia has been severe, it has generally been accompanied by bronchitis, or by pleurisy - or by both combined. The bronchitis is sometimes slight - sometimes very severe sometimes the primary disease, at other times comes on during the pneumonic disease. Bronchitis differs from pneumonia in [illegible]-ing properly speaking no pain, but rather a sensation of burning, or of soreness - the fever

also is more moderate, it differs also in there be-
-ing no dulness on percussion.
The pleurisy is sometimes very severe, at other-
times very slight, and may be either the pri-
-mary or the secondary disease. In pleurisy the
early prostration & debility is not near so
great as in pneumonia - there is also less dys-
-pnoea & fever, in pleurisy the pain or stitch
in the side is vastly more excruciating. The phys
-ical signs also differ widely - The dulness on
percussion comes on much more quickly in
pleurisy, than in pneumonia, and will vary
as to location by ordering the patient to change
his position, owing to the gravitation of the
contained liquid, therefore the dull sound of
pleurisy is not stationary, but changes with the
different attitudes of the patient. this does not
obtain in pneumonia, it will occupy the same
position no matter what may be the position
of the patient.
The heart often becomes affected by the exten-
-sion of the inflammation, or by obstruc-

-tion of the circulation, Endo-carditis is the form generally in which it occurs, and this is most commonly in the left side of the heart, Auscultation here also differentiates the dis-ease. Inflammation of the liver may be present, and may occur simultaneously with, or in the course of the disease, it is most com-mon in warm Climates. This complication is often termed bilious Pneumonia, and is characterized by the Eyes assuming a yellow hue - by a general icterode appearance of the skin - by pain in the right side - there is early tendency to stupor. This variety occurs most commonly in the latter part of winter or in the Spring, and in those who have had an attack of Intermittent or Remittent Fever the summer before.

"Prognosis" This varies - when the disease is Franck - open - occurring in a person previously healthy & without complication of any kind, and the proper treatment is instituted, it is favourable, If however the first few

days are lost without proper treatment it is unfavourable. If treatment has not been instituted prior to the 7th day it is then very dangerous. When both lungs are affected it is more unfavourable than when only one is the seat of disease, also when the upper lobes are affected rather than the lower, or when complicated with brain or liver disease. It is much more dangerous in the old, than in the young. It will generally terminate in from 10 to 21 days without treatment, and much sooner if treated judiciously very soon or may last 8 or 10 days. The average of mortality in best conditions of life, is about 1 in 13 cases. When death occurs it is most frequently about the 7th or 8th day.

"Causes" The causes which give rise to this disease, are many and various, and are the same as those which give rise to inflammation in other organs. Exposure to cold and damp- Vicissitudes of the weather, perspiration suddenly checked by the application of

cold, are the most frequent causes of pneumo-
-nia. It sometimes prevails extensively during
the prevalence of Influenza. Having one attack
of the disease renders a person obnoxious to
it ever after words. Overtaxing the powers of
the body - fatigue - any excretion that accumu-
lates the blood in the lungs may favour the
disease. Sudden transition of temperature
-bad hygiene - intemperance - tubercles & vio-
lence are all predisposing causes. Bronchi-
-tis, pleurisy, and the exanthematous fevers,
are exciting causes.

"Treatment" The treatment to be pursued in
inflammation of the lungs - is the antiphlo-
-gistic treatment pursued in ordinary inflam-
mation - to be modified by various circum-
stances. We must take into consideration
the constitution of the patient, whether robust
& plethoric, or feeble and anaemic - the intensi-
-ty of the disease - the condition of the pulse
- the stage of the disease - & the differences depen-
dent on idiosyncrasy, or varieties of individual

constitutions. By active measures in the early periods of the disease we may hope to bring about resolution, but when the disease is further advanced, we must expect a restoration to the healthy state, to be brought about by other means.

The indications in the treatment of Pneumonia are 1st To subdue inflammation and moderate general excitement. 2d To promote the removal of the inflammatory products. 3d To support the powers of the system as they begin to fail or flag. 4th To remove or mitigate any urgent symptoms that may arise.

Bleeding is the first, and most important agent in the treatment of Pneumonia, one in many cases of indispensable necessity, its remedial efficacy will be dependent upon the time the blood is abstracted - the earlier the more beneficial. We should begin if the person is vigorous by full & copious bleeding - through [illegible] arterial system. We should make the patient stand if possible and bleed

from a large orifice. We should abstract at once, an amount sufficient to make a manifest impression on the pulse, we should keep this evacuation until the patient's breathing & dyspnoea is obviously relieved. If the case demands, the bleeding may be repeated, but one full bleeding is generally sufficient. We should be very cautious in repeating our bleedings especially if we find the 1st & 2d Stages coexisting. If soon after the relief afforded by the first blood letting is not lasting — if the pain & sense of oppression in the chest increase again — the dyspnoea more distressing & the pulse begins to rise, we must bleed again until there is an amelioration of all the symptoms. Sometimes there is an apparent debility, in which the pulse will rise under bleeding, in this case we should bleed — this condition is sometimes very hard to discriminate from real debility.

Sweating in this disease does not contraindicate bleeding if the other symptoms require it.

When there are [illegible], we [illegible] first arouse the patient, then bleed. The appearance of the menses in females should not deter us from bleeding in this disease. If after the first [illegible] [illegible] of blood is [illegible], cups & leeches may be found sufficient & safer than general bloodletting. From 4 to 8 cups applied [illegible] -ory will often be found to be productive of much good, and in cases accompanied by much [illegible], we will often have better results from the revulsive effects of cups, than from general bleeding. From the difficulty of bleeding children, we are often obliged to use leeches. When the symptoms are urgent & require it blood may be abstracted in any stage, the pulse should be taken [illegible] of as it is the [illegible] indication for bloodletting. We cannot bleed so freely in secondary pneumonia as in primary, nor in old persons, and children also require circumspection in its use. The effects of bloodletting in pneumonia are the same as in inflam

-mation located elsewhere, it is beneficial by attracting the circulation from, or lessening the amount of blood sent to the lung, by relieving the function of the lungs, or by permitting it to remain as much as possible in a quiescent state.

The next remedy in importance to venesection, in the treatment of pneumonia is Tartar Emetic. It is useful in pneumonia in nauseating doses by diminishing the action of the heart and arteries, and by promoting expectoration. The Italian practice was to give it in very large doses, sometimes no ill effects was produced by such treatment, but it is useless and dangerous. Large doses may sometimes be useful, but are hardly ever required. It is not given with a view to its Emet: or purgative effects, the first dose will frequently produce vomiting or purging, whilst the 2d & 3d will usually be borne, and tolerance will be established. Given in grs ss doses will generally be found sufficient. Laennec usually gave it in doses of gr i every

two hours for 6 hours, and in severe cases gradually increasing up to grs ii ß. A very good formula is the following, Tar Emet grs vi, Gum Acacia ℥ii, Aqua Mint ℥vi - a table spoonful may be given every hour for the first 3 or 4 times, later if the disease is severe, we may give double the quantity every 2d hour: if it acts to severely or to freely on the bowels, we may combine a few drops of laudanum with it. If it vomits to much, give gutt i or ii of Hydrocyanic or Prussic acid with it, or apply a Mustard plaster over the region of the stomach. Tar Emet is productive of the most good when its effects are exhibited on the inflammation, rather than when it produces purging, vomiting, or depresses the powers of the system. Sometimes it does well by setting up Gastro Enteritis, acting in this case as a revellent, & militating against the bad effects of the thoracic disease. Tar Emet should be used after blood letting, and with Mercury, unless the case is very mild. In children - in old persons - or in patients very much debilitated, we must use it with more

circumspection; Gastritis contraindicates the use of Tar Emet. It should be discontinued if it causes pustules in the throat; also when we see palor, as it will then have produced enough of sedation.

After bloodletting & antimony have been used, Mercury should be employed. Used in the 1st & 2d stages to subdue inflammation & prevent effusion of lymph, it is also useful as a sorbefacient after the lymph has been effused. We may use Calomel in small doses gr ß to gr i every 2d hour till the gums are slightly touched, & between each dose we should give the Tar Emet. It may also be advantageously combined with Ipecac & Opii. When the disease has passed into the 3d Stage, we may use blisters, Sinapisms, stimulants & tonics.

An infusion of Eupatorium & Seneca āā ℥ii to Cs water - giving in ℥ii over 2d hour will be found an excellent stimulant expectorant useful also to sustain the powers of life, from the depressing effects of Tar Emet. Carb Ammonia in grs iii to grs v doses good - also mild aperients. And his body & mind should be kept in a state of repose.

An inaugural Dissertation on

Dysentery

Submitted the

Honorable Regents and Faculty of Physic

of the University

of

Maryland

for the degree of

M D. by

Lewis James Sutton

of Maryland

To the Honorable the Faculty of Physic of the University of Maryland Gentlemen in select=ing the disease I have as the subject of an inau=gural disertation I did not do it with the vain hope of adding any thing new I did not expect and you cannot expect me to add any thing either to Diagnosis Prognosis or cure of a Disease which has been handled by some of the brightest intellects that ever shed their light man or add a page of glory to the already glorious science of Medicine what more natural then than that I whose knowledge of that science is so poor and what slight knowledge I may have I have to thank you Gentlemen for that what more natural then I say than that I should endeavor to follow the broad and plain lines laid down by those who have been and are an honor to the proffesion they have adapted then as may have been expected the most important parts of my thesis has been taken from Authors who were able to do Justice to the subject you know Gentlemen that were I left to consult my own inclinations you would never be troubled with an

manuscript penned by me have you have all experienced I dare say under similar circumstances the feeling of embarressment and I may say almost of fear with which a young man is so much borne down at that period of life when every future prospect of good or bad depends on his success in graduating in a few months but as this is one of the duties required of us before we can gain that so ardently desired honor our diploma I in common with many others am forced to lay before you a thesis imperfect it is true yet the best that I am capable of doing and the greater part of that taken from different medical works which I have read but hoping and believing that you will make all due allowances I shall at once enter into my subject as I think I have already said enough as preparatory I shall therefore proceed at once to give its definition, symptoms morbid appearance after Death Diagnosis

Prognosis Treatment Prophylactic

Curative and Hygeenic

Dysentery

Dysentery consists essentially in inflamation of mucus membrane large intestines and necessarily extending their whole length in severe cases sometimes passing into the smaller intestines in mild cases it affects chiefly the rectum and descending Colon. Symptoms most frequently occuring in the acute stage are griping pain in abdomen tenesmus Dysentia mucus or bloody discharges or more commonly blood and mucus together pain and tenderness over the hypogastrium in severe cases sometimes extending over the whole abdomen nausea and vomiting frequently come on during the progress of the Disease and cause much distress to the patient great thirst is very common in later stage of disease the fever as may have been expected is of an inflamitory kind the most marked and I think most reliable of these symptoms is there discharge which in one or the others of its characters is always present if faecal accompany these discharges it is generally in small quantities but when called scybala in severe cases there is constant desire to go to stool yet

he passes nothing but small quantities of blood and
mucus with perhaps some scybala. These I believe
are the chief symptoms which mark an attack
of Dysentery they vary of course the modes of attack
are also different it may come on suddenly being
from the first well marked in all its details again
commencing as diarrhea and suddenly or gradually
changing into Dysentery sometimes commencing
with well marked typhoid symptoms this
of all the forms of Dysentery is most gen=
=erally fatal sometimes it will be more of a
Bilious character and the discharges evidently
Contain considerable quantity of bile this
form is most apt to occur in epidemics now most
now most of the cases of that terrible Epidemic of
the summer and fall of 1833 were of this character
indeed it was not uncommon for the con=
Junctiva to assume a Jaundiced hue and
in these cases there was but little pain except in
small of back and some cases there was no pain
or but little
" pain or tenderness of abdomen and there were
always considerable tenesmus nausea & vomiting

the evacuations were of a greenish hue with a good deal of blood and mucus and no faecal matter until convalescence began. It may assume a well marked periodic or paroxysmal form showing the influence malaria has upon this disease as well as others. The causes are various. The chief predisposing cause is great and continued heat of atmosphere long droughts over excitement of body or mind or indeed any thing which depresses the action of the vital powers prepares the system more readily to take on diseased action The exciting causes are also various quantity and quality of food large draughts of cold water whilst heated may set up the disease Also free use of ardent spirits may also act as an exciting and is always a powerful predisposing cause sometimes Dysentery runs a regular course and terminates in perfect recovery in a few days or the acute stage may be very severe and terminate fatally in a few days or it may become chronic and last a long time these are in large majority of cases fatal it is frequently complicated with other diseases which renders it more formidable

the most common of its complications I believe is with Billions. The Disease has been said to spread contagion but this I doubt true there is many things which favor this belief especially in an epidemic but if we examine closely even in cases where it attacks nearly all the members of one family we will find them in a majority of cases attacked about the same time and all exposed to the same cause in an epidemic of any disease there are many circumstances which favor. the believers in contagion yet I think the disease spread too rapidly to be said to be contagious now in the low adynamic or typhoid form. of Dysentery I believe under certain circumstances it may be communicated to the nurse unless proper care be taken but even in these cases if contagious at all it is very slightly so as to only those who are constantly in the room without taking proper exercise and using proper care in diet who appear to have it communicated to them. and the mind in these cases may act as a predisposing cause anxiety and fatigue of body I believe I have seen cases in which a daughter appeared to take the disease from her mother a wife from her husband

yet even here anxiety of mind and fatigue of body may have had more to do with the disease than contagion but wiser head, than mine must settle that the morbid appearances are chiefly found in ~~mucus~~ large intestines. there is always the effects of inflamation found in mucus membrane of large intestines in a greater or less degree, sometimes confined to colon and rectum. when the disease terminated early or during the acute stage. there are found numerous red patches in the colon and rectum which patches are frequently elevated above the surrounding parts and in some cases covered with a great many minute vesicles this more common in infants than in adults. the liver is also frequently enlarged and its whole structure apparently destroyed. it is always functionally destroyed in this disease. though in mild sporadic cases not always, organically destroyed (Eberle) Dr Watson says. it is probable that those enlarged glands which much resemble small pox pustules are the foci of most the ulcers. which are sometimes narrow and ~~oblonges~~ lying across the gut. in the worst cases the whole extent and circumference of the intestine

presents internally an irregular confused and tattered mass of disorganization in addition to inflammation ulceration mortification or sloughing of immense part of the large intestine. especially in hot and intertropical climates there is often morbid vascularity of mesocolon mesentery and omentum. with adhesion of omentum to adjacent viscera and of contiguous portions of intestine to each other. this usually takes place when ulceration has perforated all the coats of the bowel. (Condie) the omentum is often adherent to the diseased gland and forms a band by which a part of the intestine becomes strangulated and may thus cause death ulceration of large intestine are most numerous in caecum and upper portion of Colon. the right portion of omentum is not infrequently found adhering to caecum. sometimes in whole course of colon we find but eight or ten deep ulcerations. with thick sloughing edges surrounded by an extensive thickened base into which sinuses and undermining cavities are seen to penetrate. these are the principle of the morbid changes. there I have compiled from Watson Thomas Condie

The diagnosis is very easily made as there are but few diseases that resemble Dysentery and none near enough to ~~found~~ be mistaken for Dysentery. The Prognosis is much more difficult when the Discharges from the beginning consist entirely of blood the disease is generally very tractable more dif=ficult to manage when composed of mucus streaked with blood. This character of discharge is generally considered Ominous of a severe attack especi=aly when with a kind of membranous covering large discharges of blood in early stages seems beneficial by lessening congestion in the Portal vessels. Colliquative and very foetid stools ~~are~~ tympanites especially when accompanied by muco saneous fluid discharges are all very bad signs. The appearence of Natural faeces tinged with bile is highly favorable decrease of tormina and tenderness, and tenesmus skin becoming uniformly moist generally serve to establish pretty certainly the Period of Convalescence and we may consider the Patient as cured if proper care to prevent relapse

be taken but if instead of this change we have the skin becoming dry and harsh tympanites and tenderness of abdomen increasing together with increased tormina and tenesmus and pain in the small of the back come on, then we must fear the worst consequences if relief be not promptly obtained. Or if an acute suddenly or gradually becomes Chronic. or rather an adynamic character and appears to resist all treatment the typhoid symptoms increasing we are forced to conclude that Ulceration has occured and that death will shortly follow despite the best and most ably conducted treatment. but recovery may not be impossible even here and we should continue our efforts as long as there is life indeed in most cases of Dysentry of Chronic or typhoid type our prognosis must be doubtful in cases that tend a fatal termination (Nature) there is constant desire to go to stool with great pain the evacuations are small and consist of a jelly like mucus or mucus and blood mingled with particles of false membranous shreds and morsels resembling flesh there is no fecal matter or if any it is in the form of scybele.

frequently the ejected mucus is variegated in color and extremely foetid. Dysuria is also sometimes added the stomach is very apt to sympathise and thus another source of depression ~~is added~~ and danger is added to the already existing danger of the disease. at same time there is continued Pyrexia. sufferer passes sleepless or dreamy nights becomes low spirited and desponding the pulse becomes feeble and rapid the features sharpen and surface becomes cold. and thus is the life of the patient terminated by what Nelson calls death beginning at the heart. this is all I can say on the Prognosis and this is merely a compilation. the next is the Prophylactic treatment when there is a prevailing epidemic almost every Prophylactic means seem to fail yet by proper attention diet and bowels I doubt not but what many may be saved from the disease. care should be taken not to expose ourselves to sudden changes of weather and in the summer not to overheat or exhaust ourselves and never to take copious drafts of cold or ice water whilst much heated. as this seems to possess a good deal of power to light up intestinal inflamation. as to our diet we

be exceedingly cautious ~~in this~~ but little fresh food should be used as salt animal food seems still to have the same effect upon the bowels that fresh does if necessary a mild aperient should be occasionally used as if diarrhea attended with some abdominal pain a small dose of Soda and paregoric is one of the best things I ever saw tried. Next I shall finish by speaking of some of the various modes of treatment which have been practised by different authors. Eberle states the grand indications to be accomplished in the cure of this disease viz. to moderate febrile reaction of heart and arteries whenever it becomes extreme 2d. to restore regular action of liver and skin and 3d to subdue local inflamation of bowels Torpor of cutaneous exhalents and hepatic derangements are generally antecedent to the intestinal inflamation and febrile reaction and it seems proper and reasonable therefore that in primary stage of disease and in proportion as our success do we equalize the circulation and lessen the determination of blood to the bowels and subdue adverse the febrile reaction and intestinal irritation [illegible]

now to do this where there is high arterial excitement we must deplete either generally or locally or by both according to the case. whether the pulse is firm and quick or tense and frequent we must take blood in many cases the fevers of such a character as not to require depletion as in those low adynamic or typhoid cases. blood letting is no so powerful in this disease as in other Phlegmasial diseases yet in certain cases it is highly useful and cannot be omited without danger to patient it is a powerful auxiliary to other means its great if not only benefit found in the 1st stage of disease. it is far more useful in those cases which occur in hot and intertropical climates where the disease is very impetuous in its attack and so highly inflamatory that prompt and decisive bleeding affords almost the only means of checking its course and preventing its rapid termination in disorganization of bowels and liver. when bloodletting is used must make some decided impression on pulse and repeat soon after if necessary but in milder climates it may in a

large majority of cases be dispensed with. Dr. Condie
thinks that there are but few cases in which bleeding
in both forms can be dispensed with with safety
yet not laying my experience against his from
little of the disease I have seen. I must differ
with him and agree with (Eberle). and from what
I could learn of the epidemic that swept like an
angel of destruction over the lower counties
of [illegible]. in the summer and fall of 53.
the most successfull praticianers were those
who used neither general or local depletion
those who used either means of bleeding loosing
a large proportion of their patients those
who did not loosing but few. yet without
doubt it is one of our most useful means in the
begining of highly inflamitary attacks. here
if we do not use the lancet leeches or cups in tract of
the colon. are very useful by moderating the fixed
abdominal pains and also favors operation of
other remedies Purgatives properly managed are
highly useful. one that is reccommended by several
authors and which I have seen used with great

benefit. is Calomel. {~~Opium 2 grs~~ 10 or 15 grs.} Opium 2 or 3 grs followed in course of 3 or 4 hours if it do not act by 2 or 3 3 of castor oil. indeed I have seen one or two cases in which this was given at the commencement of disease and seemed ~~entirely~~ to cut the disease short and cure it without further aid. the union of anodyne and laxatives are useful when there is much pain and soreness of bowels. Rhei is much used by some Physicians not as a purgative but in small doses as a tonic a favorite prescription with a good many of our ~~low~~ Physicians is after the administration of a calomel purge to give a powder or pill ever. 3 or 4 th hour. pro re nata. composed of Dovers Powder 3 grs. Creta preparata 3 grs Rhei. 1 one gr. Rhei only given where there is need of a laxative tonic. the Dovers powder acts as a sedative and a Diaphoretic and astringent. the Creta preparata is an ~~mild astringent~~ alterative at same time acting upon lives. another Prescription is Dovers powder & Creta Preparata. 3 grs. Calomel 2 grs

this gives us a more determined yet mild preparation of mercury. Calomel in some form should always except when contra indicated form part of our treatment, Dr. Cheyne, says that he has known half an ℥ of cramer tartar to cure cases which he thinks would have perished under any other treatment: it must be finely levigated and given every 4. or 6. th hour. Emetics are recommended by some but I believe are seldom or never used. Diaphoretics are highly useful means this renders the Dovers Powder so valuable. it may be increased by the addition of a gr. of ipecac. I think the Dovers Powder would be sufficient. in the use of calomel in Dysentery it is not necessary to produce full Ptyalism. the slightest mercurial action on the gums being gen=erally sufficient. in hot climates however the sooner its effects are produced the better more promptly system brought full under its influence the better. Opium is one of our main props in this disease. Sydenham says

without it. the hands of a skillfull Physician in this disease are tied as it were his power of doing good greatly diminished. in highly inflamitory attacks it is said it should not be given in large doses. that in in such cases decisive bloodletting should be premised but even here in small doses it is beneficial especially when combined with laxitives. as disease advances - opiates become more usefull and in in the Chronic form or where reaction febrile - is weak they are of primary importance. Eberle recommends crude opium or morphia but I think I should prefer the Dovers powder. or pulvis opii and small doses of ipicac and calomel combined. Hope's mixture has been reccommended and I think I have seen it several times used with mared benefit Acetate of lead is also sometimes used. used check the discharges when they are copious and bloody blisters may be used in cases attended with much pain and tenderness of abdomen. applied over tender part but will often fail. warm fomentations or a large poultice medicated with turpentine most always of service. in the Dysenteries of children particularly after leeching Emolient

Poultices and warm fomentations are particularly useful to remove that painful affection of bladder with suppression of urine which is so often present in severe cases injections of cold water into rectum it is said answers very well - these injections will also be found useful in checking those copious discharges of blood which frequently occur they may however be more promptly arrested by an injection of 10 grs. Acetate of lead in 6 ℥ of water. Purgatives must always be with held where ulceration of bowels is sus=pected to exist. tenesmus is frequently dependent on ulceration low down in the intestine and may often be relieved by introducing into anus a peice of ointment about size of a hazlenut 3 times a day. Composed of acetate lead 30 grs. ℥ iss. of fresh lard. when tenesmus remains after most prominent symptoms have been subdued it may sometimes be relieved by an injection of an ℥ of acetate of lead in 8 ℥ water. In Chronic cases. there is frequent watery purging often attended with tormina almost always by tenesmus. which greatly distress and exhaust the patient these discharges present various characters mostly of a pale grey color often mixed with more or less mucus or a white slimy substance

and unfrequently with particles of undigested food. they sometimes are of a copious pasty like mass of a brown color in a state of fermentation again pasty with a whitish or pale grey sediment. in a few very protracted cases the discharges are copious quite watery. from a dark brown to a bright orange color or from a dirty yellow to a pale straw color they are sometimes inodorous sometimes of a peculiar sickening smell again more or less fetid. blood is scarcely ever present in these stools. and fever is only present where there is extensive disease of mesenteric gland. when occasionally there is well marked fever of a hectic character the abdomen generally flat and inelastic occasionally retracted. sometimes however there is tympanites the skin usually dry shrivelled and desquamating and of a dirty brown or sallow hue. the treatment of chronic cases differs but little from chronic Diarrhea whenever indurations can be felt within the abdomen and are painfully sensible on pressure. leeches or cups must be applied. if without sensibility or after sensibility has been removed. blisters are often very useful. leeches or cups to abdomen will often be of service. but a very close scrutiny of each case must be made to see if any latent inflamation be present

daily use of warm baths in addition to warm fomentations to abdomen will be very beneficial. small doses of tincture combined with extract Hyoscyamus and blue mass repeated every 3 or 4 hours with a dose of Dovers Powder at night will ensure will be found to aid very effectually in restoring the capillary circulation to healthy action in quieting morbid irritability of mucous membrane of intestines in moderating the profuse morbid discharges in a word in curing the disease. Balsam Copaiba and turpentine are said to be very useful. The copaiba may be given in warm milk with sugar to disguise its unpleasant taste. 10 or 20 gtts turpentine suspended in mucilage may be given every 2 or 3 hours in protracted cases unattended by fever small doses Dovers Powder and creta prepariata may be given every 3 or 4 hours with marked benefit anodyne and Emollient enemeta are useful in both forms of the disease greatest attention should be paid to the diet of patients during the continuance and the convalescence from either the acute or Chronic as it is necessary to keep the intestines as much without irritation as possible whilst there is any inflamation the mildest dilluents only should be allowed a cup of tea without milk rice water after

Convalescence is established potent should be restricted to the mildest diet and in small quantities. This Gentlemen Concludes all I have to say of Dysentery and as may have been expected it is a mere Compendium or rather compilation from dif=ferent Authors having been confined to my bed during the time that our own Professor was lecturing on this disease I have been forced to gather from any reliable source I could Chiefly from Watson. Condie's note and Eberle. then Gentleman resigning my thesis (on which I have endeavored to do my best) and myself into your hands hoping that I may be one of the happy number who in the coming spring shall recieve from your hands their title of MD. I remain with all due respect ~~yours~~.

Yours. Truly L. G. Sutton

To the Faculty of the University of Maryland

An

Original Dissertation

— on —

Chemistry in its applications to MATERIA MEDICA

— respectfully submitted —

— to the examination of —

— the —

PROVOST, REGENTS and FACULTY of PHYSIC

— of the —

UNIVERSITY of MARYLAND

for the Degree of

DOCTOR of MEDICINE.

By Lloyd Beeson, Jr.

of Maryland.

Baltimore. Feb. 1854.

U. S. Professors
C. W. Mittenberger
And
Wm E. H. Aitkin

This Thesis is respectfully dedicated in appreciation of their professional Learning as evinced by their lectures before the Medical Class.

By the Author

In investigating the Applications of Chem-istry to Materia Medica; it may not be out of place to review in the onset, the many difficulties and Mutations with which that Science had to contend.

From the earliest period of human existance there seems to have been a bestir-ing desire to unfold the grand truths of this Science, by raising theories well Calculated by the rays of their bright refulgence, to keep veiled from the Human mind the smallest glimmering of truth; notwithstanding however this seeming desire to darken the splendor of its rays, its truths now and then would flash athwart the sky of human intellect untill at length they rose triumph-hant in their own power and sagacity filling the world, with amazement at their

irridescence,

Every branch of Science has had its own many false theories and hypothesis against which to contend; but indeed there seems to have been more obstacles thrown in the way of Chemistry; Calculated to impede its onward way and progress then any other Science, for whilst the other Sciences were based upon the firm and immutable rock of truth, Chemistry has been of false hypothesis, and rocked in the cradle of selfish aggrandizement and all this by their own boasting of their learning, and a desire pretending to be directed towards the grand improvement of Mankind; and so well did they succeed that they were counted but little less then Gods; to whom magnificent temples and Monuments intended to perpetuate their grand and noble achievement

for the good of Mankind!!!

But let us trace more particularly, the rise and advancement of Chemistry, which we find had its origin in Alchemy.

The Alchemists Contended that the Constituents composing the precious Metals, existed in all the Metals only in different degrees of impurity; and the great desideratum to be the finding of the Philosophers Stone, whereby they might at pleasure change those baser Metals into gold, and such was their great Reverence in relation thereto, that they invented Mistic Signs and Symbols, which were used in their intercourse towards Each other, thereby Rendering the art unintelligable to the Common grade; they even Contended that the Knowledge was above the Capacity

of human intellect, and that it was made known by the Superior Being to those who were his especial favourites, that they were not at liberty to reveal the great secret, "affirming that dire misfortune would fall upon that man's head, who ventured to disclose it to any of the sons of men, without the clearest kind of divine authority" In virtue of these injunctions they remained as private as possible Concealing with the greatest degree of care their knowledge pursuits or opinions.

But it seems with all their care and devotion to their science, they could not keep down the scintillations of light which they in their ignorance had vainly but carefully fostering, which rose in its turn soon to trample down and out

strip in its onward progress their own false dogmas.

Their discoveries claiming to be of so great importance, and promising so much pecuniary emolument, soon attracted by the glare, them of a benighted intellect and leaning, who, though biased by its promising prospect of personal aggrandizement, and actuated by no pure motive to advance the interest of their race: published many Alchymistical books, which were eagerly bought for by the deluded race, who having no pretensions to the title of adepts, fondly anticipated, that by their possessions, they might thus make themselves the masters of that great desideratum, and though not at this time the art of printing cast an unknown

it seemed to have no obvious effect upon their publications; which must necessarily have been edited at an outlay of considerable time and money.

How far the Alchymistical fact had extended among the ancients, or whether it had assumed the form of a sect, it is impossible to say. Traces of it appear among the Arabians who turned their attention to literature soon after the conquest of the Caliphs, and who communicated to our barbarous ancestors the sacred seeds of science, the principal Chemical writers among the Arabians were Geber and Avicenna; and in their writings, such of them at least as we have reasons to consider as authentic, there appears but little of that mysticism and enigma which afterwards assumed

a systematic form. The alchymists seem to have been established in the west of Europe at least as Early as the 8th Century.

Between the 11th and 15th Centuries, alchymy was in its most flourishing State The writers who appeared during that period were sufficiently numerous, and very different from Each other, both in their style and abilities. Some of their writings are totally unintelligible, and bear stronger resemblance to the reveries of Mad-men, than to the sober investigations of philosophers, others if you make allowance for their Metaphorical Style, are written with Comparative plainess, displaying considerable acuteness, and indicate a pretty extensive acquaintance with Natural objects, They often reason with great

accuracy, though generally from mis-taken principles; and it is not infrequently easy enough to see the accuracy of their experiments, and even to point out the particular circumstance which lead to their wrong conclusions!!

Among the most celebrated of these men, we find, Albertus Magnus, who in early life was so dull and stupid that he was the laughing post of his young acquaintances, but at the age of 17 he left the abode of his father, and his native land and went to Paris, where a new life seemed to dawn upon him which called into activity his heretofore dormant intellect, he here devoted him self with untiring energy to study, and so graduated with great eclat, with the

degree of Doctor, Here in the early period of life he publicly taught School and was said to have for his pupil the much celebrated Thomas Aquinas, who wrote several treatises upon Alchymy.

Among the numerous works which emanated from the pen of Magnus, but three related to Chemistry, in the first entitled "De Alchymia" he gave a good account of all the Chemical Substances known at that time, with the Mode of obtaining the Same, describing also with much minutiness the different instruments at that time employed together with the different experiments which they had to perform, this was no mean work, for it exhibits with much exactness the progress that Chemistry was making in the 13th Century

although he could not write it without exhibiting his belief in Alchymy.

His second work was upon the Minerals in which he sustained what credit he had obtained by his first treatises, but unfortunately his third entitled "Tillium de Spinis Evallium", did not sustain his growing fame.

Roger Bacon, who was born in England in 1224 is justly celebrated as one of the most remarkable men of his age and although blinded by the avaricious desire to posses the philophers stone, yet contributed more for the advancement of Science, then any other of the Alchymist, he early devoted himself to the investigation of Natural Philosophy, and notwithstanding the great secretcy with which he conducted

his experiments, his discoveries attracted the attention of his brethren, who accused him of Magic and had him thrown into prison

In his work "de Mirabili Potestate Artis et Naturae" he pointed out the allusions of the jugglers, Ventriloquist &c and mentions the advantages which physicians may derive from acting on the imaginations of their patients, by means of Charms, Amulets and infallible Medicines, affirms that many of those things which are considered as Supernatural, are merely so because Mankind in general are unacquainted with Natural Philosophy. To illustrate this he mentions a great number of Natural phenomina which had been accounted Miraculous, and concludes with Several Secrets of his own, which affirms to be still more

extraordinary initiations of Nature; these he delivers in the enigmatical Style of the time induced as he tells us, partly by the conduct of other philosophers, partly by the propriety of the things, and partly by the danger of speaking too plainly!!

Arnoldus de Villa Nova, lived at the same time with Roger Bacon!! who devoted himself assiduously to the Study of Alchemy, he was undoubtedly a man of superior learning and to whom must be conceded the credit of first introducing into pharmaceutical use the Spirits of wine and oil of Turpentine His fame as a Doctor of much learning and ability, was so great that his attendance was constantly required by Kings! Nobility and even the Pope, but death took place whilst he was journeying

to pay the Pope a professional visit, who had often been his protector when assailed on account of his promulgated opinions on different subjects, but particularly when he was obliged to leave France on account of his declaration that the end of the world would take place in 1335.

The life of Robert Fulby is remarkable for nothing but his great absurdities, in early life he was a logician which pursuit he abandoned for that of Alchymy; to which he devoted the remainder of his life, his works upon Alchymy are numerous, and well filled with whims and absurdities.

The writings of the two John Isaac Holland are remarkable for their clearness and accuracy; giving much fidelity the

progress that was being made in their magic art, and describing, and giving plates of all the instruments that were used by them, contributing in this manner, unintentionally however to the progress and future success of a science which was destined not only to be applied to the advancement of the arts; but also to throw wide the portals of Nature, and unfold to the bewildered gaze of the astonished world, the systematic beauties of her God. And here the budding and expansion of the human mind began, continuing in one united stream to store that

"There is truth in the wildest schemes that imagination hath engendered,
And a man may gather somewhat, even from the crudest theories of fancy:

"The Alchemist laboreth in folly, but Catcheth
Chance gleams of wisdom,
And findeth out many inventions, though
his crucible breed not gold!"

And so it proved; for at this time
sprang up men, who catching the mantels
of their predecessors, fooning more closely
the connecting link that was to bind for
ever Chemistry and that Science, having
for its purpose the amelioration of Mankind.
Here commenced the Notoric Splendor of a
Science which had been hidden for Cen=
teries beneath the gilded Canopy of Ambition
and Avarice, having for its God-fathers
men, who followed its beckoning signs
with no holier desire, than to be Canonized
as the possessors of an especial favouritism
from the divine being

Its dawn was as calm and serene, as the rays of the departing day reflected upon the still and untroubled waters of the great deep.

Among the first who made any practical application of Chemistry to Medicine was Basil Valentine, who wrote many works upon the Science in their applications the most remarkable of which is his "Currus triumphalis Antimonii", in which he extols the virtues of Antimony. He it was who extracted that Salt, Mercury and Sulphur was the chief ingredient of all the substances previously known. By this man was given a less restricted meaning to the Chemistry which was previously considered to mean the art of finding the philosophers stone, but now included the art of inventing a

universal Medicine.

But at this time he Man contributed as much to diffuse the Knowledge of Chemistry in its applications to Materia medica as Theophrastus Paracelsus, Accidedly one of the most distinguished and remarkable men the age could boast of; His father being a physician, he had the advantage of his tuition in physic and Surgery. After having made a general tour over the Continent of Europe, he was at the age of 21 taken poisoner by the Tartars; by whom he was carried before the Czar of Russia, who permitted him to accompany his Son to Constantinople, where he pretended to have first found out the philosophers Stone and how he devoted himself to the Study of Medicine, and indeed with he Man

success, for soon he gained a most en-
viable reputation, especially in the treat-
ment of the General Disease, which was
then raging its ravages over the Continent
notwithstanding the efforts of the most
distinguished physicians.
If previously Paracelsus had imbibed
crude and unnatural theories in regard
to his master art, here he was fortunate
in having been taught by a former Mas-
ter, the true theory in regard to the treatment
of this disease, for this unparalleled suc-
cess was due to the employment of Mercury
in its management. He has the honor of
being the first professor of Chemistry in
Europe, a fact contributing no little in
infusing into his mind a great deal of that
self-conceit for which he was so remarkable

for it was his boast that he was the possessor of a Medicine which would not only cure "all the ills that flesh is heir to", but that it would undoubtedly confer upon mortals the bliss of an Earthly immortality, and even boasted of his intention of living to the age of Methuselah. But notwithstanding these extraordinary boasts of Paracelsus; often having lived a life of the most abandoned dissipations and vices; living forsaken by most of his friends, he died in September 1541 at Salzburg. But if his Medicine, which he called Elixer Proprietatis did not confer upon him (even) immortality, it was at last handed down to posterity being retained in our Pharmacopeias as Tincture Aloes et Myrrh.

"That he was an impostor, and boasted of secrets which he did not know, cannot be denied: that he stole many opinions and even facts, from others is equally true; his arrogance was insupportable, his combats ridiculous, and his whole life a continued tissue of blunders and vices. At the same time it must be acknowledged that his talents were great, and that his labours were not entirely useless; He contributed not a little to dethrone Galen and Avicenna, who ruled at time over medicine with universal power, and to reinstate Hippocrates on that chair from which he ought never to have risen. He certainly gave Chemistry an eclat which it did not before possess; and this must have induced many of those distinguished men who succeeded him to turn their attention

to the Science. Nor ought we to forget, that he, carrying his Speculations concerning Philosophers Stone and the Universal Medicine to the greatest height of absurdity, and by exemplifying their emptiness and uselessness in his own person, he undoubtedly Contributed More than any Man to their disgrace and subsequent Landishment from the Science".

"We have now but to review the life of one Van Helmot to complete the Names of the most celebrated of the Alchemist, He devoted himself to the Study of Medicine Contrary to the wishes of his friends, and was early distinguished for his fund of information. But soon became disgusted with his profession because he could not cure the itch, which he had Contracted, with the usual Medicinal remedies; he abandoned

it to pursue the Study of Alchymy. When he fell in with those Errors common to that day — and like Paracelsus he boasted that he knew of the Universal Medicine which he called "Alkahest".

The Men who lived after his day, although somewhat biased by false theories and incorrect modes of arguing, seemed not to be contaminated by those absurd notions of Alchymy which had existed previously to them undoubtedly was reserved the honor of unloosing the Shackles, which had been riveted around the Study of Chemistry and thus brought her into a position which her importance demanded; and gave to her a less indefinite meaning, as knowledging her to be that Science which investigates the insensible properties of bodies.

Prominent among these men, we find John Joachim Becker; whose writings exhibits with what precision and fidelity he devoted himself to the pursuit of his chosen science. But to a disciple of Becker are we more particularly indebted for the rapid Marches that were to attend the Success of Chemistry. In Ernest Stahl we find the embodiment of intellect and learning, which was soon to earn for him a reputation entitling him to be called the "Sublime Stahl" If his theories were somewhat false and established upon mere hypotheses, they were at least ingenious, and exhibited a perfect Knowledge with the science as known at that day; and postponed it for a greater efficiency thereafter. He was the first to attempt the

explanation of the theory of Combustion, He contended that all combustible Materials were composed of a certain property, which he called phlogiston; and that its Combustion consisted in its evolution, and when this phlogiston was exhausted the Material was dephlogisticated or in-combustible, He therefore regarded a Metallic oxide as a simple body and the Metal itself a combination of its oxide and phlogiston, and that the light and heat in its combustion was owing to the great celerity with which phlogiston was evolved; Many of the Celebrated Men gave in their adhesions to this ingenious and plausible theory of Stahl's

To such Men as Scheele, Bergman, Schule, Black and Cavendish, the Science

of Chemistry gives many binding obligations for each with an indefatigable desire to "Sound the depths and Shoals" of Chemistry devoted their energies and learning towards its full development and growth; each Contributing in their peculiar investigation to hasten onward the Sciences But to none is the more indebted for their investigations than "Scheele", who attracted by the beauty of the Study devoted his hours for days in its Study, Soon enabled himself by overcoming the most stupendous and formidable obstacles, to acquire a reputation deservedly unbounded and popular. To Black he is indebted for the discovery of Carbonic Acid described by him as fixed air

Cavendish Continued his investigations with fixed Air and Hydrogen, which he

had the honor of discovering. But to Lavoisier belongs the credit of overthrowing the theory of Stahl; he was early attracted to the science by the brilliant and unparelled discoveries of the British Chemist; and by his investigations he succeeded ultimately in converting the former adherents of Stahls theory, this he was enabled to do by the discovery that had been made by Priestly of oxygen gas; and as a substitute for Stahls theory Lavoisier proposed the anti-phlogistic theory, contending that combustion and oxydation were identical, and that it consisted in the combination of the combustable material with oxygen gas - but in the attempt to explain the light and heat which is evolved in combustion, Lavoisier was clearly at fault

To establish this theory he had recourse to Black theory of latent heat; to sustain his theory, Lavoisier should have proven that the rise of the temperature is always preceded by an equivalent lessing of the specific heat of the bodys; a fact that Petit and Dulong by their investigations proved to be incorrect.)
But if Lavoisier did not succeed in explaining the phenomena of light and heat in combustion; he was only unsuccessful where great men since his time, have been equally so, for I believe the question to this day remains unexplained.
Thus we have traced the progress of a Science which in its origin, seemed closely intervowen with Error and absurdities, until we have found her placed upon the solid and immutable rock of truth; proving by her

Strange Ingrations that,—
"There is no error so crooked, but it hath in it some lines of truth".

The history of Materia Medica is closely identified with that of Chemistry, for as that Science began to assume a tangible form; we find that the new compounds brought to light in its development were gradually being used in Medicine; and by noticing their effects upon the System the discoveries ultimately found themselves adding new Material to Medicine; thereby enlargeing and improving the usefulness of the Science therefore the history of Materia Medica is not only connected with Chemistry but it is so closely interwoven with it that the history of the one is rendered absolutely the history of the other

It appears that Dioscorides was the first writer who entirely and specially devoted himself to the Study of Materia Medica; but unfortunately his account is entirely devoid of accuracy regarding the remedies, that but much information is to be derived therefrom.

After this period for nearly two Centuries a rather unprofitable discussion arose between Galen and his followers on the one hand, and the Alchymist on the other which eventuated in the Complete overthrow of Galen and his Companions, but if the Alchemist succeeded in thus overthrowing error, they succeeded by the publicity of their own opinions in establishing new and perhaps as formidable dogmas, and it appears that this very fact was instrumental in bringing about the union of the

two opposing parties; or how set them=
selves to work in investigating these clearly
the truths of their several position. which
finally brought them to propose the ana=
lysis of vegetables, to ascertain their
several constituents. The first mode of
analysis was by what is known by the
destructive distillation; that is, subjecting
the substances to the action of fire, the
French closely and energetically devoted
themselves to this mode of proceeding
until it was discovered by experiments
that the several different vegetables
uniformly yielded nearly the same un
satisfactory results, proving by this fact
their own wrong positions.

But to the German Chemists, Neuman
and Carthemer was reserved the honor of

not only overthrowing this incorrect manner of Chemical Analysis, but of substituting a mode entirely new and successful.

Too much honor cannot be bestowed upon the labours of these men, for it is easier to discover the Errors and absurdities in any theory, than to invent another which shall prove to be correct,

The Developement and improvement of Natural History was adding in no small degree to the extension and usefulness of Materia Medica; Consequently we find the labours and Researches of the early Botanists preeminently entitled to our respect as the propagators of new Material to Medicine and therefore we must not overlook the Claim of respect due to the labours of Gesner, the two Bauhins, and Ray, who

by their devotions to the study of natural history, prepared it for the great improvements which it was to receive from the sparkling genius of Linnaeus.

The works of Hermann, Chomel, and Goffroy added much towards the improvement of Materia Medica, but the the publication of Lewis,s work seemed to add greatly to the growth and fulfilment of the purposes of the science, untill about this time Cullen,s work made its appearance, which contributed so significantly to the beauties and charms of his science that he is justly revered as one of its Master Spirit, nor must we forget the claims of Vogel, the learned professors of Gottingen, that of Linnaeus; as edited by Schroeber; that of Bergius; the pupil of

of Sennaeus; and the elaborate performance of Murry of Gottingen, with the Continuation by Gmelin", which so richly earned for their authors a reputation commensuate with their great abilities; and which placed Materia Medica upon a footing with the other Sciences, which her usefulness and importance demanded.

We have now traced the history of Chemistry and Materia Medica, seeing that the one having its origin in Error, and passing through more than the common vicissitudes of Science; not only established for itself broad and unmistakable principles, but that it in connection with the study of natural history, proved to be the foster mother of Materia Medica; and thus expanded the human

Mind, until it could grasp, with an intelligence becoming the Creature of an Infinite Being, the boasdom of his own Creation; and thus becoming the grand Microscope, through which we were to view the unfolding of those truths which were to be used in ameliorating our own human condition.

In the brief and imperfect review of our subject, we have been taught that Chemistry in its applications to Materia Medica, diffused its influences fourfold which shall now be our object to consider First! by the assistance of Chemistry we are enabled to add new and important remedies to Materia Medica; by the Chemical affinity existing between any two substances of Chemistry, we form a new compound:

which becomes of no small importance, in the treatment of Diseases; a good example of this may be found in the Compound of Chlorine with Mercury, known as Sub-Mur Hyag; but more properly as the Proto Chloride, for we can prove by its Mode of Manufactory, that it consist of Equal Equivilents of the Metal and Chlorine This is the formula of the United States Pharmacopaeia; Mercury 4ᵐ Sulphuric Acid 3ᵐ Chloride of Sodium 1½ᵐ Aqua dist, Q. S two pounds of the Mercury is boiled with the Sulphuric Acid untill the Sulphate is perfectly dry; this is rubbed with the remainder of the Mercury in an Earthen-ware Mortor till they are well mixed, then the Chloride of Sodium is added and rubed in with the other ingredients till all globules

disappear, and afterwards sublimed, after having reduced the sublimed mass to powder, it is well washed with boiling distilled water until the precipitate is affected by the addition of Solution of Ammonia; which is to detect the presence of the Bichloride, which is apt to be found in it.

Secondly: they are marked by the touch of Chemistry Magic wand, not only to detect, but to seperate at will, the several Constituents of Mineral or Vegetable Substances which have been endowed with Medicinal properties, and thus to use them as a whole, or to isolate any particular one as we may desire, we find a good illustration of this in Opium, by Chemical Analysis Opium is found to contain; Morphe

different constituents: Morphia, Narcotina, Codeia, Narceia, Meconine, Thebina, Pseudo Morphia, Meconic acid, Extractive matter, Caoutchouc, Albumen, Volatile oil, and Lignin, Sulphuric Acid, Resin, Fat oil, but I believe it is but seldom resorted to for the sake of Materia Medica to separate but one of these salts, and that is Morphia, which forms a very important material in the treatment of disease, the process is this, Opium is macerated and washed with water and the infusion evaporated to a certain quantity then Alcohol is added, and a portion of Solution of Ammonia with Alcohol, after resting, another portion of Ammonia with Alcohol is added, then by letting this rest the crystals of Morphia will be deposited

Thirdly! by the application of Chemistry to Materia Medica we can comprehend the Action of a remedy in its chemical relation for instance, we apply Nitrate of Silver as an eschorotic, when certain tissues have taken upon themselves a morbid action which Salts by its chemical action upon the Albumen of the diseased parts, relieves distressed nature of its burden, and enables it to resume its healthy functions, it not only here acts as a chemical agent however but also by venture of its vital powers.

But we can see a more clear illustration of the chemical action of a remedy in the urinary diseases - here by the knowledge which we possess of the remedy's chemical action we can predict the result of such exhaustion; for if we administer an alkali, we are morally

certain, that if there exists an acid in the de-
cretions, its affinity will be brought into play
and thus by forming a soluble compound
obviate the previously existing condition; or
if we discover an alkaline diathesis, we can by
prescribing a mineral acid, accordingly mod-
ifying and change its condition. In persons
of Lithic acid diathesis the urine presents
upon cooling a sediment like fine sand
this is Lithic acid; which may ultimately
lead to the formation of gravel, if we do
not by the chemical action of polash
change this morbid accumulation.

If much is due from Chemistry in
the three different lights which we have
just been considering, in her application
to Materia Medica; certainly it does
appear that she is no less indebted to

Chemistry in the Fourth position, which I propose now to consider.

Often in the exercise of his professional duties the Physician will undoubtedly be called upon to minister to the relief of suffering humanity, who by accident or otherwise may be in imminent danger of loosing his life by poison; & here the Physician can afford one single ray of hope, he will have the gratification of not only adding to his professional skill and reputation but of dispensing that boon which so seldom emanates from man - Mercy. If we find a person laboring under the poisonous over-dose of any of the Articles of Materia Medica, Chemistry readily comes to our assistance, and points out to us an available antidote

If we see a person suffering under the poisonous dose of Arsenious Acid, we have the gratification of knowing that in the Compound known as Hydrated Sesquioxide of Iron, we have an antidote; the rationale of its operations is here easily explained the Arsenious Acid deriving oxygen from the Sesquioxide of Iron, becomes Arsenic acid, and the Sesquioxide loosing one of its proportions of oxygen becomes Protoxide of Iron which is inactive. Under this head Chemistry often becomes of great importance to the Physician in a Medico-Legal point of view, for here by its light is enabled to detect its presence in a case of suspected crime and to strengthen and fortify him, in his Conclusions, he may have access to four good tests

First, the Ammonio Nitrate of Silver, forming, by its addition with Arsenious Acid two Neutral Salts; the Soluble Nitrate of Ammonia and insoluble Yellow Arsenite of Silver: but in this test care must be taken that the Menstruum does not contain either Chloride of Sodium or Animal or Vegetable infusion which will impede the formation of the Characteristic precipitate

The second test is. Ammonio-Sulphate of Copper, forming with Arsenious Acid a Compound known as Scheeles green; care must be taken here that no acid exists in the Solution,

The third test is a current of Hydro-Sulphuric Acid gas, Arsenious Acid forming with it a Yellow compound, the Bisquisulphuret of Arsenic, but care must be taken that in

Alkali be contained in the Mixture, since Opiment is dissolved by an alkali, this may be obviated by the addition of Muriatic Acid; but additional testimony here may be collected by heating this precipitate with "Black flux" and subliming it as arsenious Acid.

The fourth test we have in the application of hydrogen gas to the Arsenious Compound resulting in the formation of Arsenicivetted Hydrogen which may be burnt, and the Arsenic Acid collected upon a piece of glass held in the flame; this test is well known as Marshes.

We have now passed in review the teachings of Chemistry in its applications to Materia Medica, and while we behold those strange and startling truths revealed in its bearings

to that Science, tending in no small degree
to elevate and improve the human mind, we
should not overlook its influence in the
Moral Culture of Man, and revere it
as that Science which
"Teacheth him lessons of Mystery, Solving
the questions of doubt
She maketh Man worthy of himself, of
his high prerogative of reason,
Threadeth all the labyrinths of thought,
and leadeth him to his God.

Submitted to the Examination

of

Provost, Deans and Faculty of Medicine

of the

University of Maryland

by

Samuel H. Fisher

M.D.

Fever though a constituent of many diseases has never yet been fully and satisfactorily analyzed. Much difficulty has arisen in defining what fever is; partly because, when certain symptoms are associated none can doubt the existence of the affection, because these symptoms are not present during its whole course; and because there is no one which is not occasionally wanting. During the course of fever all the functions are more or less deranged; but the phenomena most often observed, are increased heat, increased frequency of pulse, nervous irregularity and disinclination for food. Of these one or more may be temporarily absent. The circulation instead of being quickened may be depressed, or in a state of perfect health. The heat of the body is sometimes not above that of health and frequently falls below the normal standard. The approach of fever is usually intimated by premonitory symptoms. At first, there is generally a sense of lassitude with yawning and stretching. There is a feeling of

fatigue and soreness of the muscles, together with pains in the back, giddiness or pain in the head, diminished appetite and sometimes, nausea and vomiting. The sleep is generally disturbed and the sports [illegible] but frequently nothing is complained of but a general feeling of uneasiness, which, the patient is unable to refer to a particular cause or a particular part. Frequently, these symptoms are wanting; sometimes, they last for several days; sometimes, for a few hours only. The commencement of the cold stage is sometimes abrupt; sometimes, the premonitory symptoms gradually merge into those of the cold stage so that it is often difficult to say, at what precise time the disease begins. After a variable period the cold subsides, the surface becomes hot and the circulation is accelerated. The degree of acceleration of the pulse is variable, being sometimes but little above that of health, and sometimes reaching as high as 90, 100, 120, 140, even 160 pulsations in a minute. The subsidence of the disease is frequently marked by the occurrence of profuse perspiration, increas

ed urine, serous discharges from the alimentary canal, or hemorrhage. The skin is relaxed, the tongue, if dry, becomes moistened and the secretions before suppressed begin to make their appearance.

The course and duration of fevers are exceedingly variable. Some, as those produced by inflammation, continue only so long as the local affection retains a certain degree of activity. Those run a certain course and we have no means of arresting them, though they may often be conducted to a safe termination. Fevers which run a steady course, without remission or intermission are denominated continued. Of this form, Typhoid and Typhus are the type. They are characterized by the low grade of the vital forces, and a want of energy in the system. Reaction is slow, and sometimes established with difficulty. The pulse is frequent but feeble, one part of the surface may be cold while the other is hot, the tongue is dry and covered with a dry fur, and sordes collect about the teeth. Delirium is common, but

monitory symptoms are observed. The patient has various unpleasant feelings, loss of appetite, soreness of the muscles, fatigue after the [illegible] tion, pains in the back and limbs, dull pain in the head, depression of spirits, restlessness, disturbed sleep and frequent chills. After a longer or shorter period from the great debility which is experienced the patient is compelled to take to his bed. Sometimes also, though not usually there is nausea and vomiting. The duration of the cold-stage is variable, continuing at times for two or three days. After the establishment of the white stage, the skin is very hot, the pulse frequent and full but easily compressed, the tongue [illegible] a white fur, more or less headache, and occasionally anorexia and vomiting. The bowels are almost always constipated. The countenance of the patient is peculiar; being of a dusky hue with a fusion of the eyes, and at the same time there is more or less confusion of intellect. These symptoms continuing for two or three days the disease at

tains its acme. The surface of the body now be-
comes [illegible] but the [illegible] being peculiar and pungent, constituting what is usually termed the "[illegible] mordicans." On examining the surface of the body with the thermometer, the temperature is found to vary in different cases from 100° to 107°F. The respiration is hurried and in most cases there is [illegible] of the respiratory murmur over the posterior part of the chest, accompanied by dullness on percussion. The symptoms generally exacerbate towards night and remit in the morning. The eruption which makes its appearance and which is characteristic of the disease, consists of small numerous red spots varying in size from that of mere specks to [illegible] of an inch in diameter, though generally very small. They are confined to no particular part and sometimes completely cover the surface. On the second or third day the eruption becomes of a duller and darker red and sometimes almost black. The spots are not elevated and do

not disappear upon pressure. They generally make their appearance from the fifth to the sixth day and [illegible] They sometimes fade and reappear during the progress of the disease. As a general rule the progress and development of the eruption correspond with the increasing severity of the other symptoms of the disease; and convalescence begins as the eruption declines. The duration and mortality of the disease are generally proportionate to the abundance of the eruption: where it is abundant convalescence is more protracted than where it is scanty. Sometimes the eruption is accompanied with Sudamina. As the disease advances the tongue becomes more or less dry and a dark sordes collects about the teeth, lips and gums. There is also a total want of appetite. The discharges from the bowels are dark colored and offensive. The abdomen is generally flat but sometimes slightly tympanitic. The urine is usually scanty and in bad cases there is sometimes re-

[illegible]
[illegible]
[illegible]
[illegible]
ringing or buzzing in the ears, dizziness and pain [illegible]
deafness are not unfrequent. Stupor becomes more de-
veloped. The patient seems to pay but little attention
to objects around him. [illegible]
questions but with reluctance. The tongue is [illegible]
ded with difficulty and when [illegible]
sometimes forget to draw it in again. [illegible]
quently takes the place of stupor; and though [illegible]
sally of the bar and muttering form it is somewhat [illegible]
vicient. The patient has but little refreshing slip. Some
times there are restlessness and jactitation with mus-
cular twitchings. During the third stage of the di-
sease the patient lies upon his back, slipping down
in bed from inability to maintain his position, with
his mouth open, his eyes half closed and almost
insensible to impressions from without. With the
stupor or lair delirium there are often subsultus to
[illegible] at the bed clothes [illegible]

objects in the air, and sometimes, that made it necessary
to put out the [illegible] light. The eyes are
extremely [illegible] the pupils are contracted, the light
is [illegible], sometimes contracted. Deglutition is often difficult.
A prickling distress is felt in the throat. In
bad cases there is suppression of the urine. The extremities
are cold, the skin pale, and the features collapsed. The
pulse is sometimes regular and strong, sometimes
even slower than in health, but always small and
feeble. In this state the case is not necessarily fatal,
and suitable remedies have sometimes proved effectual.
But should it terminate unfavorably, death
usually approaches gradually and without pain.
The respiration becomes slower and shorter, the limbs
flaccid, cold and bluish, the pulse ceases to
be felt, and the heart to beat. In some rare instances
death is preceded by convulsions. When the disease takes a favorable turn, convalescence is exceedingly slow, as time is required not only for the sufferer
to regain his mental actions but for the system to
throw off the exhausted powers of the system. The tongue is at

to fall off and the skin to desquamate. The intellect sometimes [illegible] impaired for weeks and [illegible]. The duration of the disease is variable. When very mild it may terminate as early as the seventh or eleventh day, in other cases it may run on for four weeks. Fatal cases may terminate at any period. Death sometimes occurs without reaction and not unfrequently as early as the fifth or sixth day. It is perhaps most frequent from the ninth to the twelfth day. Upon dissection after death there is no one constant lesion, unless the state of the blood and the petechial eruption. The blood [illegible] the veins after death is black, liquid. Coagula, though [illegible] when observed, are soft. The alterations of the lungs is most frequent in the lower and posterior part of the organs. The tissue of the lungs is more [illegible] than natural; sometimes impermeable to the air, [illegible] bling in some instances the structure of the Spleen. The Brain is generally congested, the sinuses and [illegible] filled with dark-colored fluid blood. In most cases the mucous membrane of the stomach is [illegible] or less altered. The most common lesion is [illegible]

the membrane in the Cardiac extremity. The causes of Typhus fever are: vitiated air in crowded ill ventilated places and a peculiar contagion. All that is absolutely necessary for the propagation of the disease is, that there should be numbers of persons crowded within confined and ill ventilated places, in which filth from the excretions is allowed to accumulate. Epidemic influence may also sometimes give rise to the disease. It is thought that the poison acts but a few feet from the point of emanation, so that attendants upon the sick often escape if [illegible] is taken to ventilate the apartment and perfect cleanliness be observed. The disease seldom occurs twice in the same individual. Age appears to exert little or no influence upon the disease. It may occur at any period of life. The [illegible] are equally liable to it when exposed to the causes which produce it. The length of time which [illegible] intervene between an exposure and an attack of the disease is various. Cases are recorded in which persons have been attacked immediately [illegible],

while in others a long time has elapsed before the attack has commenced. We may conclude then, that the period of incubation is uncertain. Of the essential causes of Typhus fever but little is known. It appears to depend upon the absorption of a specific poison: and that this poison depresses the nervous system and vitiates the blood. The disease with which Typhus fever is most apt to be confounded is Typhoid fever. Typhus fever is generally of shorter duration and is less apt to commence insidiously than Typhoid fever. Instead of diarrhea which most always accompanies Typhoid, in Typhus fever the bowels are most always constipated. Hemorrhage from the bowels rarely occurs in Typhus fever. Epistaxis which is common in the beginning of Typhoid is less frequent; in Typhus fever the face is of a darker hue and there is much greater debility in the latter. The eruption also is different. It generally commences earlier, is of a darker more lived hue, not [illegible] does not readily disappear on pressure, is much more abun

dant and is not confined as is general in Typhoid fever to the Abdomen. In Typhus fever the Abdomen is quite flat and is free from Tympanitis which is not the case in Typhoid fever. The anatomical lesions of the two diseases are very different. The peculiar changes of the glands of Peyer and of the Mesenteric glands which are pathognomonic of Typhoid are always wanting in Typhus fever unless there be an admixture of the two. The Spleen is less frequently enlarged in Typhus. Typhoid fever rarely attacks the old whereas Typhus spares no age. Typhoid fever is rarely if ever contagious whilst Typhus seldom occurs in isolated cases. The fatality of Typhus fever varies with the violence of the epidemic cause and the circumstances under which it occurs. It is less fatal in early than in middle or advanced life.

The unfavorable symptoms are, feebleness or absence of pulse, coldness of the surface, sudden disappearance of the eruption and inveterate vacuations, violent delirium, profound coma,

[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] diversity of opinion in regard to the most appropriate treatment in this disease. Before reaction has been established little or no treatment is required in most cases. Indeed the patient [illegible] [illegible] until the subsidence of the cold stage and the commencement of the febrile reaction. [illegible] when it is more protracted than usual medicines should be employed. An emetic has been recommended by some in order to rouse the system and direct action to the surface. Stimulants applied externally are much better. Mustard, [illegible], [illegible] Solution of Ammonia, Oil of Turpentine applied along the spine, and to the extremities [illegible] [illegible] hot bricks or bottles of hot water to the [illegible], [illegible] would probably be more efficient the hot bath. When the prostration is excessive recourse may [illegible] had to wine, brandy, or ether. After the establishment of the fever the bowels should be [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] cathartic. When reaction is high [illegible] [illegible]

purgatives are preferable. Active and drastic purging should be avoided. Purgatives should be so administered as to procure two or three discharges from the bowels daily. There [illegible] been much diversity of opinion in regard to the use of general bleeding during the early stages of the disease. The opinions generally entertained, concerning this matter are, that when indicated by the previous sound healthy the patient, where the pulse is hard and there is severe local pain, blood-letting, carried to a moderate extent is of value. In such cases it is thought to shorten the duration, and mitigate the severity of the disease and to lessen the mortality. It should, however, always be employed with great caution. If the disease be in its advanced stage, if the patient has suffered from debility or ill health and especially if he has been intemperate and if there be a tendency to assume the Typhoid state which characterizes some epidemics the remedy should [illegible]

to. Indeed, some practitioners never resort to general blood-letting in the treatment of Typhus fever. As regards the use of local blood letting there is great unanimity of opinion. Dryer wet cups applied along the Spine or between the Shoulders are of great efficacy in diminishing the pain in the head, the injection of the face, the delirium and other symptoms. The heat of the surface is greatly diminished by the use of cold or tepid water. Cold affusion may resorted to with great benefit in some cases, or where this is not practicable the surface may be sponged. Where there is a tendency to Pneumonia the affusion is attended with hazard. In such cases sponging with warm water should be substituted. Diluted Spirit is sometimes used to the great relief and comfort of the patient often producing a gentle perspiration. Diaphoretics, such as Neutral Mixture, the Effervescing Draught, Sweet Spirits of Nitre, Solution of the Acetate of Ammonia, often prove highly useful. Dyer's Powder is efficacious by quieting restlessness and

[illegible] of. When [illegible]
the respiratory organs, a combination of atomic,
Opium and Ipecacuanha is advantageously ad-
ministered in small doses until the tissues are
slightly affected. There is a general sanction
of the use of Stimulants and tonics in this di-
sease. In some cases they should be administered
from the very commencement of the disease.
When the circulation is languid, the pulse soft and
feeble, the skin hot and there are exhaustion
and debility, at whatever stage of the disease, there
exists the necessity for the use of Stimulants.
More generally they are not called for until there
is subsidence of the febrile symptoms and prostra-
tion indicated by fullness of the pulse; and cadaver
of the extremities is about to begin. Among the [illegible]
es of Stimulants, almost universal preference is gi-
ven to Wine. When the skin is cool, the pulse weak
and fluttering, with great fullness and hur-
mathering delirium Wine combined with Quinine
and a nutritious diet produces an almost magic

effect. Opium in such doses as to keep up a regular excitement and not to stupefy is highly beneficial. The general rule in regard to the use of stimulants is: that they may be administered so long as they strengthen but do not accelerate the pulse, while they relax the skin and moderate the stupor and Delirium. For the purpose of allaying nervous agitation and restlessness and inducing quiet and sleep, Camphor and Opium have been most pensively used. When the surface is cool, sinapisms, and Blisters should be applied to the trunk and thighs, remaining long enough to produce redness not vesiccation. To relieve Coma, violent headache or delirium the hair may be thinned or the whole Scalp shaved and ice or cold water applied, or a blister over the whole scalp. In order prevent those who are necessarily exposed to the contagion from contracting the disease, thorough ventilation, perfect cleanliness, a wholesome and nutritious diet and free exercise in the open air should be rigorously observed. These

who are compelled to go near the patient should
never do so while fasting; neither should they if
possible to avoid it inhale the breath of the pa-
tient

An
Inaugural Dissertation
upon

Spermatorrhoea

Submitted to the examination
of the
Provost Regents and Faculty
of the
University of Maryland
for the degree of
Doctor of Medicine
by
Archibald Geneyes of
Maryland

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Spermatorrhœa.

Unfortunately for the interests of humanity and the progress of Truth - there are few questions into which Fanaticism has not introduced itself - For years the dogma, that greatness and goodness are inseparable - has been seriously taught by pulpit philosophers, and at this day, the extraordinary proposition is advanced, that the investigation of certain forms of disease should be declined, because, in many instances, they are the offspring of immorality and vice. Nor does this unphilosophical sentiment emanate from those alone, whose opinions are valueless, but is the seriously expressed view of some - whose knowledge and experience - if properly directed - would aid much in casting light upon the obscure class of diseases referred to. Following in the lead of these Medical Puritans are many of less note. The principle carried to its full extent, would decimate Society, and its injustice will be further apparent, when we learn the prevalence of the disorder which is the subject of this paper, and the numerous maladies it - simulates & creates. On the investigation of Spermatorrhœa - it has appeared to me that we may at last have discovered the key to those singular forms of disease, which have at times, baffled the skill of practitioners and eluded the search of Pathology. I have thought, that many of the so called eccentricities of genius owed their existence to this disorder. Spermatorrhœa is the term used to express any excessive spermatic evacuation - from whatever cause it may proceed. It includes nocturnal & diurnal involuntary pollutions of two

kinds, the first being accompanied by erection and pleasurable sensations - the second occurring unconsciously. Certain discharges of the first class are sometimes far from exerting a pernicious influence on the system, nature appearing in healthy & continent persons to relieve spermatic plethora in this manner. The character of the emission may however change - both in quantity - quality and frequence. Slight inflammation having ensued, and thus is laid the foundation for a worse form of the disease - worse only because more obscure and unsuspected, for according to Lallemand, all excessive spermatic discharges produce the same effects. The exact period at which the evacuation alters its benefical character is difficult to determine - though the substitution of certain symptoms will aid us in approximating it. Among the first effects of this nocturnal emission are disturbed sleep - general vague sensations of uneasiness, dull flitting pains in the lumbar regions and an increased desire for micturation - (the water passed is sometimes greater in quantity, sometimes less, than in the healthy state) and accompanying this, a conviction that the bladder is is not yet emptied - this gives great uneasiness & is quite characteristic of the forming stage of the disease - As the discharge progresses - the erections become more feeble & the sensations less pleasurable. Dark rings begin to encircle the eyes - and the complexion acquires a sallow hue - (though this is by no means a constant symptom) The functions of digestion become disordered, the appetite loses its keenness and unaccustomed fastidiousness is displayed in the selection of food. Pimples

of a peculiar character make their appearance upon the face & sometimes upon the neck - These I have seen - although I am not quite prepared to consider them as a direct result or correct symptom of this stage of the disease. I believe the dreams - at this period, are somewhat characteristic - they are allways lascivious - and frequently the patient fancies himself about to enjoy sexual connexion - but is suddenly awakened by a premature discharge. An attentive observer may readily perceive great attenuation in spirits - periodical mental depression - and a general growing indifference & listlessness As the malady advancing - nears the crisis - these symptoms become aggravated - Sleep is no longer looked forward to with the natural delight - but dreaded, as the season of the patients torment. The organs acquire so morbid a sensibility (or rather sensitiveness) that a slight touch, often produces imperfect erection and premature discharge. The animal desires, however are not extinguished, but on the contrary are wonderfully exalted, and often unnatural affections are experienced,

I am well convinced that the vices of many debauchées - crimes against nature, etc - are often rather the result of Spermatorrhoea in this stage - than of what is called satiety. Perhaps it this is the reflex action of the outraged nervous centre which controls this part of the economy - that so morbid a lust is engendered - that Nature can oppose no obstacle. But in the next stage of the disease - following rapidly - this exaltation disappears Discharges, by night and by day now occur - without erection and unattended by pleasurable sensations - although perfect consciousness ~~may~~ of the loss may still remain.

The supervention of diurnal discharge is exceedingly unfortunate marking an advanced condition of disease. But in addition to the symptoms before alluded to - the functions of the intellect are becoming seriously affected - the power of memory, in particular, is weakened or lost: and there is great confusion of ideas - Vertigo is of frequent occurrence and the digestive apparatus so disordered, that the stomach often rejects most articles of food. The character of the dreams is altered, they become frightful, and sometimes nightmare in its worst forms distresses the patient. A vivid (sometimes morbid,) appreciation of his state and shame is ever present to the wretched sufferer - poisoning all objects of sense - and paralysing all desire and effort for recovery. It is quite curious that in this condition the patient will at times attempt coitus - this I have seen - urged by a factitious want of the system - but in all cases premature, discharge follows a distention of the penis, so feeble as not to merit the name of erection - Some patients manifest an uncontrollable desire for constant motion - while others can with difficulty be persuaded or forced to rouse from the torpid state in which they lie. The last step wanting to complete the disorder is rapidly taken, and discharges - both daily and nocturnal occur - without consciousness on the part of the patient - assuming the character of a passive flux. A perfect state of impotence is now established, both in regard to objects of natural desire and unnatural lust - further yet - absolute aversion to the opposite sex is

observed to be always present. The abstracting powers of the mind are peculiarly affected, hence the extraordinary confusion of ideas - becoming often so great as to produce or lead to dementia or insanity. Monomania is, not seldom, an evidence or accompaniment of the disorder - and did space permit - some curious instances might be adduced. The sufferer is almost always tormented by a constant apprehension of impending evil, and as a means of escape from the unknown - unseen - but fearfully felt danger - meditates suicide. Generally hypochondriasis or hysteria supervene - and with them a host of horrors. The intellectual disorder becomes much aggravated, and the patient presents an extreme degree of emaciation. Palpitations - dyspnoea often occur. Paralysis is a not unfrequent result - and a late writer adduces several cases in which he attributes epilepsy to Spermatorrhoea. Many have been known to spit calcareous matter, and indeed - so powerful is the influence exerted by the genito-urinary organs - that there are scarcely any functions of the economy not perverted by them attend a diseased condition. In speaking upon this subject Lallemand alludes to several apparent cases of pulmonary and cardiac disease - having been cured by the removal of Spermatorrhoea, thus showing that they depended upon - 8 were the result of, the specific disease, of which he was treating

It would, in a paper of this kind - be needless to follow this branch of the subject through all its course - suffice

it as say - that unless checked - the disease can have but a fatal termination - Spontaneous recovery being seldom or never accomplished. The discharges are voided, either alone - during micturation or defecation, and the evidence of their existence will be alluded to again - Let us now proceed to take a rapid view of some of the causes of this formidable malady - And among the first of these we may enumerate defective education - mental and physical. In the humid and superficial system of training so common among us - time is not taken to teach youth the importance of having resources in their own minds - their ambition is not directed to high & noble objects - a veneration for the great and beautiful not cultivated. and they are thus deprived of the aid of that moral & healthy tone of morality resulting from the proper direction of the nobler faculties - in resisting the temptations by which all are surrounded. - I regard the common practice of keeping children in ignorance of the existence of evil, as exceedingly pernicious. The inexperienced and unsuspecting boy sees but the pleasures of vice, nor knows that repentance comes with bitter experience has taught him - and often the lesson comes too late. The almost universally neglected physical training, is a valuable adjuvant to whatever evil impulses may be given natural or engrafted. (While on this connexion. I might mention a curious case which fell under my notice - of a young man who first contracted habits of self abuse & unnatural intercourse, from

reading the charges against Demosthenes.)

I am convinced that in most instances this defective education will be found to be the first step in debility & depravity. At an early period children - particularly males, are subject to the influence of bad habits of nurses - this added to the effects of bad example, and incautious exhibitions of fondness - dalliance - on the part of parents & others - who suppose children too young to notice - and original nervous susceptibility, evidently tend to produce a most unfortunate condition. In the history of all diseases, we find certain constitutions possessing certain diathesis - nor does Spermatorrhoea offer an exception. According to Lallemand there does sometimes exist a congenital predisposition to this disease. Certain cutaneous affections and their metastases; physical peculiarities - as phymosis; a disordered state of the rectum and its contents; the action of certain drugs; the presence of sebaceous matter under the prepuce; the influence of the cerebellum; ~~H~~orseback exercise begun at the commencement of puberty; certain positions during sleep and in sitting; the perusal of obscene books, and indulgence in erotic ideas; blennorrhagia or gleet gonorrhoea; All these are enumerated as causes adequate - either alone or combined - for the production of the disease. But these are others - more direct, among which the most prominent are the different varieties of

abuse as venereal excess, masturbation etc & long continued continence. Indeed some of the causes above enumerated would appear to be productive, rather of these vices than of the specific disease under discussion. A certain writer claims that abuse of the sexual organs exists to a far greater extent than on the Continent, more especially Southern Europe, than in England and America. This may be true - climate and temperament do perhaps exert some influence - but it is foolish to shut our eyes to the actual amount of vice in our own country because it exists to a greater degree in some other. The evil is around us - about us - and daily on the increase, because unsuspected & unchecked.

M. Lallemand in remarking upon masturbation, advances the idea, that there is in man a natural predisposition for it - arising from the peculiarities of his organization; the continuous secretion of semen and the form of the superior extremities

This is a matter more of curiosity than of practical importance; no matter whence arising, it is quite certain that masturbation is practised to a far greater extent, than charity for human nature would dispose us to admit.

I fancy it to be a far more frequent cause of Spermatorrhea than any form of venereal excess.

Mr Dougal states that it is more practised among the lower classes - making the indications for treatment different in the ~~said~~ various orders of society. I fancy that this is untrue. It is notorious that the estimation in which virtue is held among the lower classes - is so slight as to oppose few obstacles to illicit intercourse - Why then should those who are surrounded by so few impediments to the satisfying of their natural desires - resort to such a practise? In the higher orders - whether virtue be more esteemed or not I will not stop to enquire - but certain it is that Conventionality - propriety or some other restraining agent - act as a sufficient check upon evil impulses - Hence I fancy that among the rich and pampered - among those whose animal passions and desires (having dethroned reason) are greater but their opportunities for gratification, among those of their own class - few or none - here I say, we will probably find the ~~stomachs~~ existing to the greatest extent. It is remarkable that none of Lallemand's cases, were those occurring in the lower orders - These questions are of exceeding interest but so complex, that my space warns me that they can be here noticed only as causes of the specific disease under discussion.
In regard to continence - as a cause of Spermatorrhoea it may be remarked, that the general physiological law ~~in regard~~ of the beneficial influence of moderate

exercise is believed to obtain, in regard to the functions of the genital organs. To a great degree this may be true, yet the extraordinary physical strength and beauty attained by the ancient athletae (among the most rigid abstinence was enforced) forbid us to grant that continence, carried to any extent, is capable of produ the ill consequences, described by Lallemand - (Perhaps the Roman Catholic priesthood might throw some light upon this point - though I much suspect their virtue to be of the Spartan variety) Nor can I adopt his idea, that continued abstinence is due to physical inability to break through it - or view it as the result of unperceived pollution. He teaches, that in all men - there is a constant secretion of semen - which semen once secreted must find exit - if it be not naturally ejected, then it will be discharged by other means - Other physiologists maintain that semen is, of all secreted fluids, the most easily absorbed - and though they allow that this process constantly goes on - hold that its reabsorption is essential to the preservation of perfect health - But rejecting extreme views it appears probable - that the secretive process depends very much upon the mental stimulus - and is increased or lessened according to the demands made upon the secretive glands - The consideration of continence, therefore - by Lallemand - as a cause of Spermatorrhoea is not quite so clear to me as ~~it appears to be~~ many other parts of his valuable treatise -

In this necessarily rapid and cursory view of Causes - many points of interest have been omitted or overlooked - but we have found them numerous and of such a nature that all are more or less liable to their influence - One of the peculiarities of the disease under remark, is its persistent and progressive character - Many disorders tend to resolution, but spontaneous recovery from this malady is as yet unrecorded - Unless timely checked - the symptoms and sufferings become aggravated - leading to a fatal termination. The Diagnosis is rendered difficult by its complications with more apparent or "perceivable" disease - in which it may be overlooked - but in a case of a doubtful or suspicious character - it is fortunate that we possess means of attaining absolute certainty - I refer to the detection of Spermatozoa in the urine and upon the linen of the patient. M. Lallemand enumerates and explains in full - various methods for accomplishing this - both by the naked eye and with the aid of the microscope - It will be quite unnecessary for me to dwell upon this subject at any length - but I may remark that the cloudy appearance (studded with brilliant points) following micturation in the bath - and the viscid and ropy consistency of the last drops of urine - voided under ~~any~~ any circumstances - are points of much interest - indicating, as they do - the presence of semen.

These are, to be sure, rather rough tests - and the examination of urine should, whenever possible - be conducted with the aid of the microscope - which ensures absolute certainty. How- ever - having in any case, ascertained the existence of the disease - what means should we adopt for its cure. The general law - in the treatment of inflammation, in regard to the removal of the exciting cause - holds good here - though in a somewhat modified form. It would be of little avail for us to endeavour to discover the original or primary cause of this peculiar condition, but we should be guided by the local symptoms - by the actual state of the parts. The debility of the organs, or the immediate cause of the disease, must be lessened - before we can - with advantage, use gen- eral means of treatment - Lallemand speaks much of the error of the doctrine which teaches that Spermatorhoea arises from original debility, or atonic condition of the organs. He however admits, that this may occur in rare instances, & recommends a tonic system of treatment; the cautious local application of galvanism - the administration of ergot - Cold local applications - warm aromatic, and sulphureted baths - Cold drinks - in many instances advising the use of ferruginous waters - internally and as baths - When some degree of tone has been restored to the system - moderate exercise - general, and of the parts, will

be found beneficial - This general debility or atonic state may be recognized by the absence of local irritation & is most to be suspected in persons of lymphatic temperament. Lallemand alludes to the information afforded us in these cases - by noticing the effects of atmospheric changes. This form of the disease yields gradually to careful and long continued treatment. I have lately seen a contrivance, for the relief of Spermatorrhoea, (Sper^a rings) a modification of one I saw some time since. They are unquestionably of use - but only in the earlier stages of the disease, while the will yet exerts a restraining power over the parts concerned, and it is unfortunate that patients seldom apply for relief, until they are beyond the reach of such simple means. In many instances of Sper^a resulting from the existence of worms - cutaneous affections - cicatrices - stricture - fissures - hemorrhoids and constipation cure may be effected by their immediate removal - followed by general treatment of a tonic character. Sulphureted baths - natural or artificial are very advantageous - and in cases where irritation of the mucous membrane exists Cauterization is our standby - In chronic inflammation of the urethra, prostate - vesicles - it exerts a magical influence - hence is of essential use in the treatment of Sper^a arising from blenorrhagia - masturbation & excess -

I have alluded to abuse, as being a frequent cause of Spinal
the peculiar condition produced being manifested by
local symptoms - The slight degree of irritation which at
first exists - gradually or rapidly (according to the frequency
or injury of the abuse) assumes an inflammatory ~~character~~ character
accompanied by relaxation and debility. Our first duty
therefore, is to relieve & remove this morbid irritability -
(or rather, irritation,) and having accomplished this - to restore
the lost tone to the organs. The error commonly committed,
consists in the immediate and indiscriminate exhibition
of tonics, which instead of relieving, serve only as fuel to
the disease - By warm aromatic baths we shall be
able in some degree to soothe the irritated organs - & it
is of exceeding consequence, that the strictest regimen of
diet be enforced - the food should be of the simplest kinds.
It is equally important that the patient be removed
from the influence of all exciting causes - the mind should
never be suffered to dwell upon lascivious images, but
absolute chastity of idea be cultivated - The thoughts of the
patient should be drawn from his condition and turned
to high and ennobling subjects - The administration
of mild sedatives may be cautiously tried - Should the
progress of the disease overcome these ~~mild~~ as simple means,
more active measures are to be adopted - We may practice

the plan of M. Bichat - and apply bandages to the perineum - for a length of time - & failing in this - an injection of opium and plumbi acetas may be tried. If however, in spite of all our efforts - a chronic inflammation of the parts be established, there remains but one method - viz - cauterization. And it is indeed fortunate that we possess an agent, at once so simple and so efficacious - The manner of its application is by means of "la pate caustique" and is so familiar to all, that I need not dwell upon it. The utmost caution must be observed in preparing the system - and in the frequency of its application. One operation will generally be found sufficient - it should however be always be practised, in the recumbent posture. If this method fail - our case is indeed hopeless, but I believe that its success is so great - that it may almost be considered infallible - Lallemand gives but two cases in which success did not attend its use - & these the disease had gone so far - that Death could be the only physician. When some degree of tone has been established it will be further aided by cold local applications - the douche - etc - and by general tonic treatment. It is quite necessary, that the organs be taught their functions - & hence moderate coitus is recommended - both from its healthy influence on the economy and organs - & from

ible known - in preventing return of the pollutions, acquired from habit - During Convalescence, the rules of treatment are to be dictated by common sense, and are the same as those laid down for the treatment of disease generally, in this stage - I alluded also, to a peculiar condition of the organs, known as 'abnormal nervous susceptibility', in which very slight irritating causes - as touch or friction give rise to curious sensations - sometimes pleasurable, and often excite erection and cause emission. These cases are rare - and generally confined to patients of a certain temperament; The indications for treatment are evident, and in mild cases, we shall be able to combat the susceptibility to irritation by the use of sedatives, and narcotics. Camphor is much vaunted, but according to M. Lallemand is objectionable, and if given at all, it should be ~~exhibited~~ in small doses - The regular introduction of a catheter or bougie, is one of the most valuable means we possess for subduing the morbid sensitiveness (It is to be noticed that in these cases local evidences of inflammation are absent)

Tonics being contraindicated, warm baths will be found of great benefit - but the great remedy is Acupuncture - an operation by means of which

we are enabled to act directly upon the nerves - and the beneficial effects of which are permanent - In regard to the after treatment little need be said, the same general rules laid down in former cases, being applicable here. It is a matter of great regret - that this whole subject is yet enveloped in much uncertainty - and it is chiefly to Pathological Anatomy that we must look for further information Of the great prevalence of the disease there can be no doubt - and the double motive. of pure love of truth and interest, appeals strongly to all practitioners of the healing Art, in addition to the merit which shall attend him who shall rescue this important malady from the filthy hands of quacks and mountebanks, who have so long usurped it.

A

Clinical Report

of

six cases of disease

submitted to the examination

of the

Provost, Regents, and Faculty of Physic

of the

University of Maryland

for the degree of

Doctor of Medicine

by

James Alfred Perkins.

of

Maryland.

Acute Rheumatism.

Patrick Lawless: aged 21 years: a native of Ireland:
has been in the United States one month.
Twelve years ago had an attack similar to
the present one: his previous health has been
good: is a laborer and has been employed in
packing ice carts very early in the morning.
May 27th, five days since, he felt a general
chilliness, with pains in the joints of the
lower extremities: this chilliness continued
through the following day; the pain being
increased and accompanied with swelling
of the joints: took a dose of salts and had the
extremities rubbed with liniment:
the next day the pains were up in the lower
extremities, but had then become very severe in
the shoulders and joints of the upper extremities:
much sweating at night: and increased pain.
Became to the Baltimore Infirmary on the 31st
May, in the following condition: has fever:
pulse 90 and full: resps 27: tongue furred:
skin hot and dry: severe wandering pains in-

limbs: both wrists are much swolen: profuse sweating at night: also has cough with mucous expectoration: got. V. S. to ℥xii: also take Scuddamores mixture: ℥ß. every fourth hour, with Pulv: Doveri: gr x. at night:

May 31st. pains were very severe last night: are less severe this morning: sweated much: skin is still very hot: pulse 76: resp. 27: has pain at the precordium: Dr Thomas saw him to day and ordered: c̄c̄ viii. to the spine betwēn the shoulders and over the loins: also, R, Hydrg: Protochlo: ℈i. Pulv: Doveri: ʒi. ft. chart: vi. one at night: continue the former mixture every three hours.

June 1st rested better last night. this morning the pulse is full and hard: skin hot and dry: bowels freely opned: pain at the precordium less: impulse of the heart increased: sounds are less distinct: the bellows murmur was heard this morning betwen the 4th and 5th ribs inside the nipple: pulses in the carotids are very strong: contin: treat:

June 2, Rested badly last night: pains were very severe: much sweating: this morning the skin

is not so hot: pulse 72 and less firm: resp 24: tongue very heavily coated with a yellowish fur: thirst is very urgent: impulse of the heart strong: the carotids throb: bellows murmur is heard over the precordial region: the former treatment was continued as yesterday:

June 3, had very severe pain in the right shoulder and wrist last night: profuse sweating: six ounces of blood were taken yesterday afternoon by cups, from the region of the heart: the pain at the precordium is less this morning: moist skin: pulse 84: resp: 20: bowels opened: bellows murmur very distinct: continue the same treatment to day.

June 4th. the wrist is much swolen and very painful this morning: has pain also between the shoulders: pulse 83 and strong: skin hot: bowels opened: pain over the heart on pressure: ordered cups between the shoulders and to the precordium: continue the former treatment.

June 5th. pulse 72. soft: resp 20: skin less hot to day: has had five stools through the day:

June 6th, has less pain in the limbs to day: moist skin: soft pulse: one dejection from the bowels: increased dullness over the heart: bellows murmur less distinct: slight effusion into the pericardial sack: ordered by ĉĉ: sang: ℥vi: also ℞ Hydrg: Protochlo: gr xij. Pulv: Doveri: ʒi. ft: chart: iv. s. one every night. ℞ bin: Colch: bin: Antim: āā ʒiij. s. gtt. xxx. every three hours.

June 7th, complains of a general stiffness of the limbs to day: some pain in the right shoulder: tongue is cleaning: bowels opned twice: no pain at the cardiac region: dullness over a large space: slight friction murmur at the upper part of the precordium: cont: rem:

June 8th, still has pain in the shoulder: the gums are tender from the influence of the mercury: one stool to day: pulse natural: continue. treatment.

June 9th has increased pain: hot skin: pulse 80 and full: resp: 28: two dejections: gums red and swolen: impulse of the heart increased: contin: rem:

June 10th, this morning the pains are less: skin still hot: furred tongue: bowels opned once: murmur still present: has pain in left side: ordered: Emplast: Canth: 4 x 6. inch: to the seat of pain: also. Mass: Hydrg: ʒss: Opii: gr xij:

Ipecac: grxij. ft. pill: xij. S. one every night. also Vin: Colch: qlxxx.
every fourth hour.

June 13th is free from pain: pulse natural: Skin cool and moist: is convalescent:

June 14th complains much of his side, which is very sore from the blister, has no pain in the side: slight cardiac murmur still present:

June 17th some pain in the arms: one stool this morning: ordered to continue pills: also. R. Guiac: ʒij. Potass. Nit: ʒij. Sulph: Flor: ℥ss. ft. chart. xij. S. one three times a day:

June 20th is sitting up to day, convalescent,

He left the house on the 22d of June; relieved:

Sciatica.

Richard. Farmady: aged 23 years: a native of Newfoundland: is a sailor: was attacked suddenly with severe pain in the lower extremity of the left side, which completely disabled him from walking. He had received no treatment since he was taken, except the application of several small cups, which gave no relief. He is a man of remarkably well developed frame, is corpulent, very healthy. The pain was traced from the sciatic notch along the course of the nerve to the heel: the condition of his system was inflammatory: pulse and firm tense: furred tongue: hot skin: bowels not opened: Dr Mittenberger saw him to-day and ordered: ℞ iv. to be applied twice to the right side of the sacrum: also ℞ Pulv: Dover: gr xx. Hydrg: Submur: gr x. immediately, in four hours, ℞ Magnesiae: Sulph: ℥ iss: Vin: Colch: - ℥ iij. Antimon: Tart: gr i. Aqua: ℥ vi. S. ℥ ß. three times a day.

July 22, Was releived by the cups yesterday still has some pain along the course of the nerve from the knee to the foot: has no pain in the thy now: had four stools last night: this morning the pulse is 108 and full: tongue still furred: ordered: b.s. to ℥xii. also. R. Potass: Nitrat: ʒi. Pulv: Rad: Colch: ℈ij. Hydg: Submur: gr viij. Sart: Antimon: gr i. ft. chart: No. viij. S. every fourth hour: Pulv: Doveri: gr x. at night.

July 23, rested well last night: this morning still has a numbness in the leg from the knee down: the blood which was taken yesterday was buffed and cupped: pulse is 100 less full: skin cool: bowels freely opned: continue the former treatment:

July 24th. Slept well last night: sleight pain in the knee: skin is cool this morning: pulse 80 and soft: bowels not opned: continue the same powders at intervals of six hours.

July 25th. Feels no pain this morning, is able to walk pulse 80: skin natural. tongue sleightly coated: is convalescent: continue powders.

Left the house in a few days entirely releived.

Remittent Fever.

Mark Haigon. aged 35 years: a native of Ireland: has been in this country six years: his general health is good: is a laborer: and has been living in a malarious district of country: Was attacked on the 7th of September with a chill, followed by high fever which has continued to the present date: the fever is of the remittent form: the exacerbations being in the afternoon has had no medical treatment.

He came to the Balto Infermary on the 14th in the following condition: is now in the paroxysm of the fever: pulse is 108, quick and full: skin hot and dry: tongue dry and furred yellow: eruption on the lips: no stool for three days: tender over the epigastrium and left hypochondrium: the spleen is very much enlarged being as much as ten inches in length: thirst urgent and no appetite: Dr Miltenberger ordered c̄ c̄ vi. over the spleen: also R. Submur: Ext: Col: comp: āā gr v. ft pill: ij. give both immediately: Ol: Ricini: ℥ss in three hours, followed by an enema if it should not operate: when the bowels are freely moved give Cinchonine gr x, followed by gr v every three hours.

Sept 16th, rested well last night: the bowels have been freely moved several times: is free from fever this morning pulse 72 and natural: skin cool: tongue cleaner: there is less tenderness over the spleen to day; dulness extends over a space of eight inches to day: ordered a blister over the spleen 5 x 5 inches: contin: Cinchonine.

Sept 17th, had no paroxysm of fever yesterday after noon: his pulse was much excited by the blister, and he had some head ache: is much improved this morning and is now entirely free from fever: is convalescent: ordered to contin: cinchonine gr v every 3 hours.

Sept 19th. is still improveing: pulse is natural: skin is cool: no head ache: tongue is cleaning and moist: the eruption on the lips is disappearing: no dejection to day: contin: rem:

Sept 20th, is convalescent: bowels have not been moved for two days: ordered. ℞ Submur: Ext Col. comp: āā gr v. in pill: contin: cinch: gr v. ter: die:

Sept 21st left the house to day relieved: ℞ Cinchona ʒss. Ferri: Carb: ʒij. Pulv: Aromat: ʒi. m: s. ʒi ter: die:

Intermittent Fever.

Hugh Trainer. aged 40 years: a native of Ireland: has been in this country 18 years: lives on the Annapolis road: has been laboring at the mine banks: Was attacked on friday the 3 of September, with sick stomach and vomiting of bile: was not conscious of then having any distinct chill:

On saturday in the afternoon he was attacked with a slight chill, followed by the hot and sweating stages of a paroxysm of intermittent fever: again vomited bile: took some castor oil, which operated freely:

On Sunday the paroxysm came on at one oclock and was more severe than the former one.

Sept 6th he came to the Balt Infermary, is now in the intermission: pulse is natural: tongue furred white: bowels not opned to day: the spleen is enlarged: and there is excessive tenderness over the region of the epigastrium and spleen: Dr Mittenberger ordered R. Hydrg: Submur: grvi, to be followed in 4 hours, by Sal: Rochell: ℥ss. mustard to the epigastrium.

Sept 7th had a paroxysm at one oclock yesterday: the purgative acted four times freely: this morning the skin is cool and natural: pulse 72: tongue furred: there is less tenderness at the epigastrium to day: commenced at five oclock this morning and took, Sulph: Cinchoniae: gr v every three hours had a paroxysm to day at eleven oclock, less severe than the last: ordered c̄ c̄ ij to epigastrium: continue cinchonia every 3 hours. take gr x. at bed time:

Sept 8th. is now in the intermission: natural pulse: cool skin: tongue somewhat furred: bowels not opened: [illegible] bleed: [illegible] this morning and takes Cinchonia gr v. every 3 hours

Sept 9th, had no paroxysm yesterday: condition is good this morning: no fever: bowels opned: tongue clean: appetite recovered: no tenderness at the epigastrium: ordered to continue the cinchonia every 3 hours:

After three days he left the house, relieved.

Dysentary.

John. Jones. aged 30 years: a native of America: a sailor: has been sick five days: on the 20th of June, he was exposed to the sun, and becomeing much heated he drank very freely of ice water: on the following day, 21st, he was taken with pain in the abdomen and diarrhoea: the next day the stools were very frequent and bloody: with much straining: these continued on the two following days, he took some purgative medicine, from which he experienced no releif; was without any other treatment.

He came to the Baltimore Infermary on the 26th, being in the following condition: has fever, the pulse is full and frequent: skin hot and dry: tongue furred: thirst very urgent: there is tenderness on pressure in the left illiac fossa, over the sigmoid flexure: stools are frequent and bloody, with tormina and tenesmus: got. enema of Infus: Lini: also, R. Sodae: Sulph: ʒij. Ext: Opii: gr vi. Aqua: ℥viij. m, s. ℥ss. every three hours.

June 27th, had stools frequently during the night, are smaller and less bloody than they were: less febrile disturbance this morning: pulse 92 and soft: stools are mucous mixed with some fecal matter: much tenesmus: still tender over the sigmoid flexure: got c̄c̄iv to left illiac region: continued the former treatment.

June 28th stools were more frequent last night; are mucous and bloody still: with tenesmus: abdomen still tender: skin is cool: pulse 92: con: rem:

June 29th continued much the same through the day, yesterday, had six stools during the night, got a fomentation to the abdomen, which gave him much releif: the skin is cool this morning: pulse 84: tongue is swolen and furred white: had three bloody stools, with tormina and tenesmus; continued treatment.

July 1st, continued much the same yesterday and last night: to day the pulse is 84 and full but soft: skin is moist: abdomen not tender: the stools are small and consist of mucous mingled with a

small quantity of fecal matter, with straining still. Dr Miltenberger took charge of the case to-day, and ordered. R. Plumbi: Acetas: gr iij. Pulv: Opii: gr ¼ in pill every 3 hours.

July 3. no stool for 24 hours; but much tenesmus; ordered R. Zinci: Sulphas: gr xvi. Tinc: Opii: ℥ss: mucilage ℥iv. ft. enem: ij. give one immediately and the other in 4 hours if nescessary: discontinue Pills:

July 3. is much more comfortable to day: no tenesmus now: retained the 2 enema yesterday: discontinue all treatment now: repeat the enema if nescessary.

July 5th, has had five stools since dinner yesterday, without tenesmus: ordered. R. Inf: Rub: Villosus: ℥ij. 4us in hor:

July 7th, is convalescent, no stool for 24 hours: con: rem: For a few days there was some tendency to diarrhoea, but he left the house entirely releived.

Typhoid Fever.

Patrick Kelly: aged 44 years: a native of Ireland: is a laborer having a well developed frame; was attacked on the 25th of Aug: with head ache, which has persisted to the present time: had fever, but could not perceive any chill: had vomiting on the second day: on the fourth day was freely purged having five or six large stools: has twitching of the facial muscles, trembling of the lower lip, intolerance of light and sound, ringing in his ears: cough with dry sibilant rale at the upper part of the thorax: skin dry and hot: no rose spots: tongue coated white: pulse 100; sharp and thrilling: only a few drops of blood from the nose: bowels opened once every day: belly is not tympanitic, but hot: Dr. Miltenberger ordered: sanguin: ℥vi to be taken by cc iv from the neck: also: ℞ Potass: Chlorat: ʒi. Sodae: Bicarb: ʒij. Aqua ℥vi. s. ℥ss. every second hour.

July 3d, got no sleep last night: has no head ache this morning: tongue cleaner: pulse 80: one stool: facial muscles are less tremulous: contin: rem:

July 5th, skin is hot and dry: pulse 96: still has cough: pains in belly which prevented him from sleeping

pain also in lumbar region: bowels were opened yesterday and to day: has several well marked rose spots on the abdomen; (this being the tenth day of the dissease). has not slept since he came in the house: the pupils are dilated: mouth and hands are tremulous: belly tympanitic: gurgling at right illiac region:
℞ Sodae: Bicarb: ʒiss. Morph: Sulph: gri. acid: Hydro-cyan: gtt xij. Aqua ʒij. ft. Solut: S. ʒi ter: die: poultice to the belly to be kept on through the day.
July 8th. Slept well last night, had profuse perspiration: pulse 84: Still has cough: has burning sensation in belly, which is tender at the right illiac region: rose spots are more numerous, elevated, florid, and disappearing entirely on pressure: face and hands still tremulous: skin hot: slight head ache: no stool: ordered ℞. Mols: Hydarg ij. at 10 and 4 o'clock each day:
July 9th Slept well: no head ache: moist skin: pulse 100: tongue moist and slightly coated: no cough: bowels not opened yesterday nor to-day: slight nausea: belly tympanitic, but less painful: rose spots still present: ordered Sal: Rochell: ʒij. repeat in 2 hours if wis:

July 9th, feels a general indisposition: skin is warm but moist: pulse 104: no appetite: gurgling in the abdomen: only one rose spot present: three stools: belly tympanitic: continue former treatment.

July 11th, has headache last night: pulse 96: hands and head are hot: soreness at right hypochondrium: tongue heavily coated no stool since yesterday: ordered ℈ℓ iii. over the right hypochondrium: also. R. Sal: Rochell: ℥ß. and repeat if necessary.

July 13th, no dejection from the bowels for three days: pulse 96: skin moist: head cool: tongue cleaning at tip's and edges: belly tympanitic: con: rem:

July 14th continues much the same: pulse 96: skin moist: two dejections: con:

July 15th got no sleep last night: was kept awake by pains in abdomen: pulse [illegible] 96: tongue is clean: ordered a blister to right iliac region 6 x 8:

July 17th has more appetite: bowels are regular: skin cool: pulse 120 in the sitting posture:

July 18th feels much better to day: the belly is relaxed: skin warm: pulse 96 in the lying posture: con: rem:

July 20th complains of much debility: appetite is
better: ordered ℞ Ammon: Sulph: gr ij. ter: die:
July 22d. is convalescent to day: sitting up:
ordered to discontinue: remedies.
He left the house on the 26th relieved.

An Inaugural Dissertation, On

"The Brain and Nerves,"

Considered in their relation to the Body, and to the Mental Faculties.

Offered, for examination, to the Provost, Regents, and Faculty of Physic of the University of Maryland, for the Degree of the Doctorate.

By George T. Collins.

February, 1854.

"The Brain and Nerves"

Considered in their relation to the Body, and to the Mental Faculties.

When we investigate the nature and objects of the human Constitution, we become sensible that The Mind, which feels, and thinks, and directs, is that portion of our Being, for the purposes of which, the whole Corporeal frame has been Constructed.

If, then, the mind be the directing power, for the use of which the bodily organization was originally designed, it follows; that for the various purposes of perception, thought, and feeling the Mind must be in immediate Connection with some portion of that organization — which must be so placed and so Constituted as to maintain a Communication with, and exercise an influence upon, all other parts of the body. — Such is the fact: — and, by universal Consent, The Brain is now admitted to be the immediate organ of the Mind; to be the seat of Emotion, perception, and thought; and its nerves are looked upon as the means

= by =

by which it Exercises an influence over all the functions of the body, and, through which, its Communication with the External World is maintained.

In inquiring into the mutual relations of the mind and body, the great leading fact, which ought never to be lost sight of, is; that One part of the Organization - namely, the Brain - is directly appropriated to what may be Called the Central or internal Operations of the mind, such as Perception, emotion, thought, and judgment; and that Other parts - as the Muscles and bones, or Organs of voluntary motion - are appropriated to what may be called its External Operations, Viz. Executing the external Commands of the Will. Palpable as is the distinction between these two Classes of Operations, it has, strange to say, been often Overlooked; and, hence, We read of Certain Pseudo-philosophers who have gravely Contended, that man owes all his

- mental -

mental superiority to the perfection of his hands!—
The propounders of such an untenable doctrine
overlooked the fact, that the hands are useful
only in proportion to the intelligence and skill
of the Mind which guides and directs them; and
that the well formed hands of an Idiot are of
no advantage to him, and impart to him none
of the mental Power of which he stands so
much in need.—Accordingly, the more carefully
we shall enquire, the more certain will it appear,
that it is not by any perfection of the merely
secondary instruments of voluntary motion,
but by the Combined Superiority of Mind
and Brain, that Man is peculiarly distinguished
from all other Animals. It is the Mind
which is the truly human portion of our Being;
And in Man the mind is conjoined with a
more perfect and Complicated Brain than
we meet with in other Animals,—Simply
because he is remarkable above them all for

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the variety and extent Of the faculties with which he is endowed. It is true that in his body and limbs he possesses executive instruments, also far superior to those of other Creatures, but it is not to these he owes his high position in the scale Of creation. They are given to him Only to place him in harmony with his own elevated mind; for if the instruments which it employs to effect its purposes were not perfect in proportion, he would be Constantly harassed under the Conception of plans and designs which he had not the means of either fulfilling or Communicating, — thus forming a singular Exception to the wisdom and benevolence displayed in all other works of his Creator.

The same subservience of the Organization to the Capacities and instincts, is Observable throughout the whole Animal Kingdom. In proportion as the intelligence

= of =

Of an animal is limited, and its instincts are few, its Brain is observed to be simple and rude, and its executive instruments correspondingly few and imperfect.

The Brain is that large organized mass which, along with its enveloping Membranes, Completely fills the Cavity of the Skull. It is, as we have seen, the seat of Thought, of feeling, and of Consciousness; and the Centre towards which all impressions made on the nerves distributed over the body are Conveyed, and from which the Commands of the will are transmitted by other nerves to put the various parts in motion.

The Structure of the Brain is so Complicated, that less is Known of its true nature than of that of Almost any other Organ. It would, therefore, much exceed my Limits to describe it here, further than by Giving a brief

= description =

description of some of its principal divisions.—

On sawing off the upper part of the Skull, we come to a membrane called "dura mater", which adheres closely to the inner or Concave surface of the Bone.— The dura mater is a Compound structure, Consisting of Fibro-Serous membrane; its outer lamella being fibrous, and its inner — which is derived from the "Arachnoid" membrane — serous. It is thick, firm, and resisting: its outer surface — from adhesion to the bone — is rough and somewhat opaque; whilst its inner — lying in Contact with the Brain is smooth, shining, and of a pearly Color. Besides its close apposition with the Cranium, which it lines, it at the same time invests the Brain, and sends inward, processes. It is moreover prolonged in a Tubular form through the Spinal

= Cord =

Cord, and along the foramina of the Skull and Vertebræ.

Immediately beneath the Dura mater, we find a very thin and transparent membrane, investing the Brain, Medulla Oblongata, And Spinal Cord; And named "Arachnoid", from its fineness of texture — resembling a Spiders web; ἀράχνη εἶδος. — It is situated between the Dura Mater and Pia mater. Over the whole surface of the Brain, the Arachnoid membrane adheres so closely to the Pia mater, as to be scarcely separable from it; but in different parts of the base of the Brain it can be easily raised from its Connection. No bloodvessels or Absorbents have been hitherto detected in the Arachnoid membrane, altho' the phenomena of disease sufficiently evince that it is endowed with both. The inner surface of this membrane is constantly bedewed with

a serous exhalation, And there is little doubt that, like other membranes of this Class, it forms, in its whole extent, a shut sac.—

Adhering to the surface of the Brain and its Convolutions; dipping down into And lining the Sulci or furrows between them; and investing the medulla Spinalis; another Membrane of a fine texture and great Vascularity, Called "Pia Mater", is found. Its inner surface is in close Contact with the Cerebral substance; the external is in apposition with the Arachnoid Membrane on the surface of the Convolutions, but loses all Connection with it after passing into the Sulci or furrows. It is made up of a thin Lamella of Cellular tissue permeated by a multitude of minute Capillary Arteries; and the Blood vessels which go to the Brain branch out so extensively on the membrane, that, when a little inflamed, it seems to

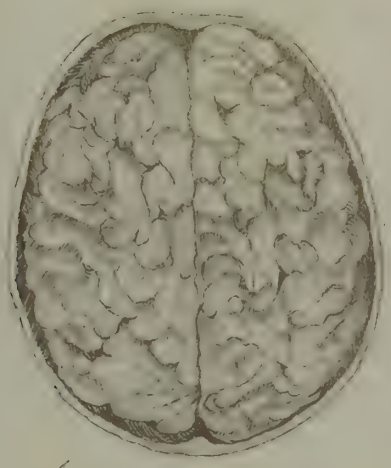
= Constitute =

Constitute a perfect vascular network. This minute subdivision is probably of use in preventing the blood from being impelled with too great force against the delicate tissue of the Brain.

The Cerebrum or Brain proper forms the largest portion of the Cerebral Mass of the nervous system, and occupies the principal part of the Cranial Cavity: (Hyth. 5) from the frontal bone to the occipital fossa, and its superior surface is Convex and Arched — Corresponding with the vault of the Cranium, beneath which it is placed. Its surface is rendered unequal by several depressions and elevations marked upon it. The elevations are Called Convolutions (Gyri), and are situated between the depressions (Sulci). The Course of the Convolutions is winding and tortuous, as the name implies, and their size presents many varieties in different

= places =

places. In the annexed Sketch I have attempted — And the attempt is a feeble one, I admit — to represent the Convolutions as =seen= On the upper surface of the Brain.



"A".

In the middle line, there is a deep Cleft separating the Brain in its whole length, into two halves or Hemispheres, as they are Called. Into this Cleft dips a tight, stiff membrane, resembling a Scythe in shape, and hence Called the "falx"; or, Sometimes, — from its being a mere fold of the dura mater, — the falciform process of the dura mater. From its dipping down between the two halves of the Brain, the Chief purpose of this membrane Seems to be,

=to=

to relieve the one side from the pressure of the other, when the head is reclining to either side. —

Each half or hemisphere Of the Brain, is, on its external surface, Convex in its General outline. Its internal surface is flat and Compressed, as it rests against its fellow of the Opposite side, the falx major being interposed between them. The inferior surface presents several depressions and inequalities, Corresponding with those of the base of the Skull. On the inferior surface of each Hemisphere is observed its division into Lobes, Called, from their situations, the anterior, middle, and posterior — each occupying nearly a third of the whole length of the Brain. These divisions are manifest only on its under surface, and, in Sketch "B.", they are represented by the lines E.E. and F.F. (In their natural

= Situation =

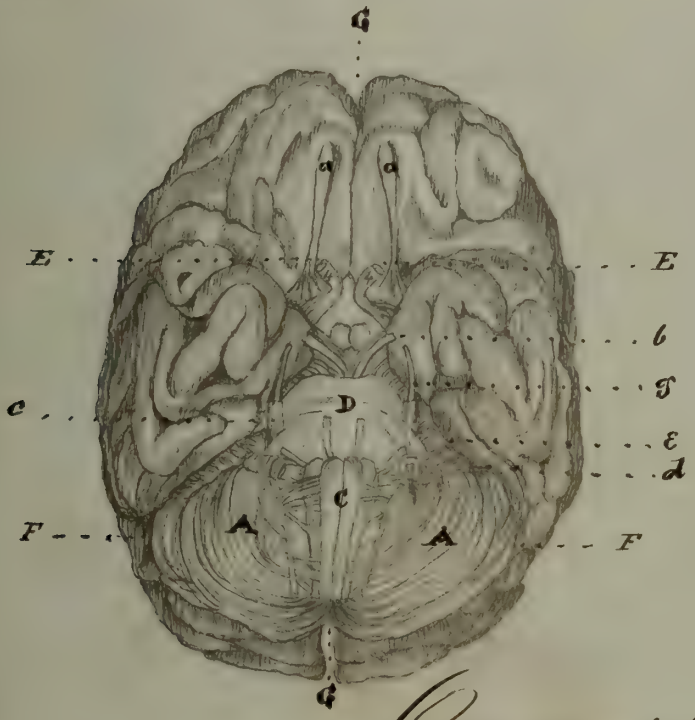
situation, the anterior lobe, lying above the dotted line EE, occupies the forehead; the middle lobe, or that portion lying between the two transverse lines EE and FF, is situated above and a little in front of the ears; and the posterior lobe, lying below the transverse line FF, corresponds to the back part of the head.

Beneath the posterior lobe, a strong fold of the dura mater, called the "Tentorium" is extended horizontally to support and separate it from the Cerebellum or Little Brain, lying below it. — The second division of the central mass of the nervous system is the "Cerebellum," alluded to above, which differs in size, as well as in the arrangement of its component parts from the Cerebrum. Its surface, instead of Convolutions, is divided into a number of Concentric Lamellæ ("folia Cerebelli"),

= placed =

placed perpendicularly on their edges, and enclosed one within the other. If, however, the sulci between them be opened, several other lamellæ will be found enclosed within them, but smaller, more irregular, and with various degrees of inclination. — The Cerebellum is marked "AA" in the adjoining Sketch.

"B."

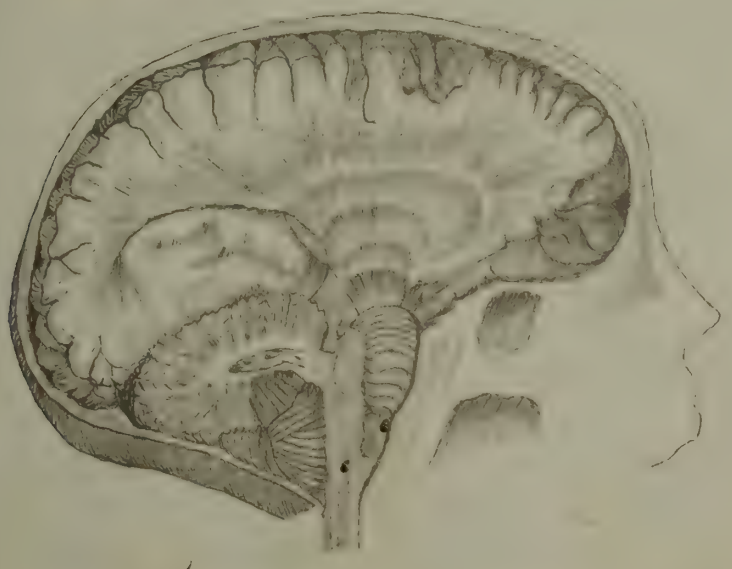


On examining the Convolutions in different Brains, they are found to vary a good deal in number, size, depth, and general appearance. In the various regions of the same Brain they are also

= different =

different, but preserve the same General aspect. Thus, they are always small and numerous in the anterior lobe; larger and deeper in the middle; and still larger in the posterior. —

The thick Cord — marked "E.E." in sketch "C" —, seen springing from the base of the Brain, and stretching downwards towards the Spine, is named the "Medulla Oblongata", or oblong portion of the Spinal Marrow. At one time the Brain has been regarded as proceeding from, and at another as giving rise to, the Spinal marrow; but, in reality, the two are merely Continuous, and neither grows from the other.



"C".

The small round filaments or

= Cords =

Cords, seen in Sketch "B" to proceed from the sides of the medulla Oblongata, and from near the base of the Brain, are various nerves of sensation and motion; some of them going to the organs of sense, and others to the skin and muscles of the face, head, and other more distant parts. — The long, flat looking nerve, "a a", lying on the lower surface of the anterior lobe, is the Olfactory nerve, or nerve of smell, going to the nose. The round thick nerve, "4 4", near the roots of the former, is the optic nerve, or nerve of vision, going to the eye. That marked "6" is the motor nerve, which supplies the muscles of the eye-ball. A little farther back, the fifth pair "c", is seen to issue apparently from the arch "D" called "Pons Varolii", or bridge of Varolius. It is a large Compound nerve, and divides into three branches, which are ramified on almost all the parts connected with the head and face, and the upper and under Jaw. It comprehends nerves of both sensation and motion, and one branch of it, ramified on the tongue, is the nerve of

= taste =

taste. Other branches supply and give sensibility to the teeth, glands, and skin. The seventh, or Auditory nerve "E", is distributed on the internal ear, and serves for hearing. The eighth, or pneumogastric, nerve "d", sends filaments to the Trachea, lungs, heart, and stomach, and is one of great importance in the production of the voice and respiration. It also influences the action of the heart, and the process of dijestion. ——

Such, then, is a brief outline of the Brain and Nerves. The study of the functions of the nerves abounds in interest and attractions for every intelligent mind; but as their minute investigation would cause me to extend this Paper to an unreasonable and tedious length, I must pass them over in silence. — Before quitting the subject, however, it may be well to state generally; that the nerves of animal life serve chiefly to place the mind and its organ the Brain in Communication with the external world; and that their importance

= may =

may be best understood by imagining what man would be without them. — Let us suppose, for example, that any one were suddenly deprived of the services of the nerves of sight, hearing, sensation, touch, and smell; and that, retaining all his internal powers of emotion and thought unimpaired, he were, from the destruction of his muscular nerves, also to lose the power of regulating his movements — What would be the result, and how long could he exist? Is it not clear that he would be left in the midst of creation in a darkness, silence, and death, compared with which the awful solitude of "the last man" would be a pleasurable and social crowd? —

Without nerves to convey to the Brain the impressions derived from external objects, no interchange whatever of thought or feeling could take place between man and man, and no image from without ever reach the mind. Unless the nerves of sight and

= hearing =

hearing announce to our Consciousness, we must remain unmoved and unaffected; and unless the muscular nerves were ready to obey the Commands of the will, we should be powerless.— In this way the mind and body are equally dependent on each ~~other~~. Without a Brain to think, and nerves, muscles, and bones to execute, the Mind would be — as far as we are Concerned — powerless and useless: whilst these organs, on the other hand, without Mind to guide and direct them in their exercises, would be — like the paralyzed limb — an unmeaning and motionless encumbrance.

George T. C Ollins.

Baltimore, 3rd February, 1854.

An
Inaugural Dissertation,
On,
The signs of Pregnancy.

Submitted to -
The Provost, Regents and Professors
of the
University of Maryland.

For the degree of Doctor of Medicine,
February 14th. 1854.
By.
Robert Morris Key,
of Maryland.

"Reason and free enquiry are the only effectual agents against error. They are the enemies of error, and error only." Jefferson.

To,

John Hanson Briscoe, M. D.
Baltimore Maryland.

Although fully conscious of the imperfection of this Essay, yet impelled by motives of gratitude and affection, I must beg leave to offer this small tribute of my respect to you, from whom I have received so many proofs of friendship; and under whose auspices I received the first principles of that noble science, to which my future life is to be devoted — For which I now offer my most sincere thanks, and beg permission to dedicate to you this my Inaugural Dissertation —.

Your affectionate Nephew and
Pupil

The Author.

To.
Richard H. Thomas, M. D.

Professor of Obstetrics, &c.
in the.
University of Maryland.
This Essay,
Is also dedicated,
As a testimony of respect and esteem for his numerous virtues, and professional talents,

By his friend and
Very humble Sot.

The Author.

Few are the questions in medicine, whether considered in a merely professional point of view, or in relation with civil or criminal law, impose on the medical practioner a more trying duty, than the determination of the existence or absence of pregnancy, place before him an instance where the natural difficulties are increased we may say an hundredfold. We cannot rely upon a single statement made by the individual, but must prepare ourselves to encounter every species of falsehood and misrepresentation; and yet on the correctness of our opinion frequently depends the claim to fair fame, virtue, and honour; and in criminal cases, the condemnation or the aquittal of one arraigned for a capital offence, or the preservation or distruction of the unborn innocent. The instances which present themselves are unfortunately too frequent, in which the unmarried female, either yielding to the influences of passion or made the

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victim of the unprincipal seducer, and becoming pregnant, an investigation as to her state is sought for, in the hope of inducing marriage, or perhaps for the assistance of a jury, in the assessment of damages.

An attempt may be made to conceal pregnancy, in order to avoid disgrace and enable her to distroy her offspring; the apparent innocent with which pregnancy is denyed under such circumstances is incredible, and almost certain to mislead us. In other instances pregnancy may be feigned, in order to exort money, to compel marriage or to delay the execution of the sentence of death. These are instances of every day occurrence, we often find females declairing their innocence, who upon examination was found to be pregnant, and we have instances upon record where a female had been hanged and upon post mortem examination, a foetus was found, and thus the life of the unborn innocent suffered the crime.

of its mother.

When proceeding to the investigation of signs or proofs of pregnancy, we have to collect from various sources, some of them we can have no evidence except from the report made us, and on the other hand we must judge for ourselves.

Signs of Pregnancy,

We will divide the signs of Pregnancy into Rational and Sensible. The first comprise those characters pointed out in the early periods, as a conception may be justly expected and then in the subsequent stages; the suppression of the menses, the enlargement of the abdomen, Modifications of the Umbilicus, the enlargement of the breast, modifications in the Urine, And the Changes in the general Health of the pregnant Female, we have also an alteration in the Pulse. We will separately consider these signs

Suppression of the Menses. We have it as a general law, and of such truth that whenever the suppression of the menses occur in a healthy female, without a known cause, and not attended with or followed by any morbid symptoms we may justly regard it as a sign of Gestation; but as the suppression is caused by so many accidents, we ought carefully to enquire into all the circumstances past & present which may

produce such an effect, we have it stated by Authors that in young married women the menses become at once suppressed and continue so for some time, and is supposed to be caused by the irritation or derangement produced by the first conjugal approaches. Some woman are very irregular in their menstrual returns, having them prolonged much beyond the usual interval.

In married women and others who have been incurring the risks of Pregnancy, suppression may be caused in various ways independent of conception; such as different forms of disease, mental emotions, particularly that of fear. We should not forget that there are causes occasionally met with in which suppression arrises in connection with a new appearance of the menses, the eliminations of the discharge being prevented by an imperforated state of the hymen. In such a case the secretions takes place, but being prevented from leaving the body, accumulates therein distending the vagina, & the Uterus, and so giving rise to several symptoms attending pregnancy.

This is one of the cases in which we have often the reputation of a female greatly at stake, and they are often seriously injured. We have menstruation going on during pregnancy, and conception taking place before the appearance of the menses and the appearance of her menses, was a sure sign of her being pregnant.

Such exceptions, as we have named here, having been found to exist should always be taken into consideration to guard us against error, but we should acknowledge as a general law to which there are but few exceptions, that when suppression of the menstrual discharges takes place in a healthy woman, previously regular in her returns, who has not sustained any accident, it ought to be regarded as a circumstance strongly indicative of pregnancy, especially if accompanied by other symptoms of that state.

We will now take up the signs offered us, by The Enlargement of the abdomen. We have only a few moments shown that this

may proceed from other causes, than being produced by pregnancy, we cannot place it as a sure diagnostic sign; however there is something peculiar in its shape and mode of development during gestation; thus, in the first month the enlargement diminishes and almost disappears and the woman seems smaller at the end of the second month than during the first, the abdomen is flatter in the first month than before, because the Uterus settles down in the excavation; at three months and a half the hypogastric region evidently becomes more enlarged and continues to increase until term.

The tumefaction begins to show itself just above the symphysis pubis, being more considerable at first in the median line than else where, while the sides appear to be flattened; after the fourth, the upper extremity of the Uterine tumor may be clearly seen through the abdominal walls, especially in thin subjects, by placing the woman upon her back, and the abdominal muscles in a state of

relaxation. The developments of the abdomen are much more rapid in twin pregnancys, and in dropsies of the amnios, than in other cases; Besides, the relations between the increase of the abdomen and the stage of pregnancy is not always the same; thus, some woman are no larger at the eighth or ninth month, than others at the fifth, owing either to their high stature, their breadth of pelvis, or to the small projections in the vertebral column and upper part of the sacrum. On the other hand in small women, where they have a contracted pelvis, the abdominal protuberance is much better marked than in the other case. There are other phenomena noticed about the abdomen; we perceive bluish brown coloured streaks towards the inferior part of the abdomen, and are more numerous in some cases than in others, but we are not always sure that they exist, they become paler, but often do not disappear altogather for some time after delivery. The muscles and aponeurosis of the abdominal walls become thin,

and the muscles have the appearance of being removed from each other, and the aponeurotic space is quite widely separated. Having finished this portion of our subject the next changes that we will notice is the.

Modifications of the Umbilicus. During the first two months of Pregnancy, the Umbilicus is rather retracted, and more depressed than usual, in consequences of the descent of the Uterus, but when this organ begins to ascend, the Umbilicus gradually rises also, so that in the third month it is restored to its natural appearance, and in the fourth month, it is found less hollow than before conception, in the fifth or sixth month it is nearly on a level with the surrounding integuments, and in the seventh completely so; and towards the end of gestation it projects considerably above the surface.

The production of these changes by the enlarged Uterus, may be also produced by any tumor enlarging the abdomen, which circumstance of itself, can afford no proof of its being produced by a gravid Uterus. These Umbilical depressions

afford a rational sign of great value, because they are constant & though any tumor of a large size, or a collection in the peritoneum may produce them yet it is only thought that they must exist in advanced pregnancy; but of course we will not hazard an opinion upon this sign alone.

We will not take up The Alterations perceived in the breast of the pregnant female.

We perceive a change in the phenomena of the breasts after the menses have been suppressed for a period, or in many cases we do not find it until they have arrived at & passed the second. It is noticed by an uneasy sensation of shooting and stretching fullness, accompanied by soreness & tingling pains felt about the centre of them and in the nipple. The breasts themselves grow larger and more firm; the circle around the nipples, become altered in their colour & structure, constituting the areola, & as gestation advances, milk is secreted; There are in this portion of our subject as in those we have passed over, various points of exceptions, for instance, the period of gestation at which the changes may occur, as well as in

the degree of their development, for in some instances they may be recognised very early, while in others the change is hardly perceptable until gestation is far advanced or even drawn to a close; but we generally find them becoming developed after two months of pregnancy have been completed, with perhaps the secretion of the milk. The development of the breasts may arise from other causes, than the result of pregnancy. In many women the breasts enlarge in consequence of marriage, and the habits thence arising; in others it may happen from the persons becoming fat, it may be caused by accidental suppression of the menses, or a retention by an imperforate hymen, or any cause that would lead to a distension of the Uterus, we can however distinguish the enlarged breast in pregnancy from that produced by fat, by the firmness of the breast, and a corresponding fullness not being found in any other part of the body. In some woman of an irritable habit, swelling & pain of the breast accompanies each return of their menstrual discharge but

under this circumstance the pain and swelling will subside in two or three days, whereas that caused by pregnancy continue to increase; in women of weak & delicate constitutions very little change may be perceived, 'till pregnancy is far advanced or even up to its termination.

The changes that takes place in the Areola, will require particular attention, as it is one of the most certain internal indications we have of the existence of pregnancy, arising from the operation of sympathy; the changes consist in its colour, condition of the integuments, and the appearance of the glandular follicles, these several changes are said to be perceptible about the end of the second month, but they differ in many cases, in their time of appearance at this time we cannot find the change in colour & we perceive but slightly the alterations in the nipple, and the little glandular follicles but we may be sure to find them at the end of the third month, as they are said, at this time to be fixed; we now perceive a circle around the nipple, whose colour varies in degree according

to the complexion of the individual, being in the Brunette much darker than we find it in the Fair female. The extent of this circle varies according as the pregnancy advances, as does also the colour; it has been noticed at the time of labour to be quite large in extent, & then again not more than a quater of an inch in diameter, & the colour nearly black.

In the centre of this circle we have the nipple partaking of the altered colour of the part, and appearing turgid & prominent; the surface of the areola, especially that part that lies about the base of the nipple is covered over by the glandular follicles which are in many cases very numerous. At the sixth month the breasts themselves become much extended, they become generally full & firm, at least more so than was natural to the person previously; we now see venous trunks of considerable size ramifying over the surface sending branches towards the disk of the breast.

As pregnancy advances we perceive shining whitish lines over the breasts; these are more

perceptible in woman who before conception had very little mammary development, these lines should not be considered a diagnostic sign, as where they are once formed, they are often found to continue. We cannot with this knowledge of the breast look to the affirmative side of our question only, without looking to certain circumstances which will most materially change the certainty of our conclusions, as these like many of the "Signs of Pregnancy" are various.

In regard to the secretion of milk, we would naturally suppose this to be a certain sign of the existence of pregnancy, but we have this doubted, we have the secretions of milk brought about in the young unimpregnated female by the frequent applications of an infant to the breast, and this has furnished a flow of milk sufficient to nourish the child. It has already been shown that morbid causes capable of distending the cavity of the Uterus may excite the sympathetic changes in the breasts, and it

appears that the secretions of milk may be produced in the same way.

Notwithstanding however, the exceptions established by such facts as these we have just stated, we should attach great importance to the presence of milk in the breasts and if found in connection with others of the rational signs, it should go a great way in forming our conclusions, especially if occurring in a woman who has never borne a child, or been pregnant before; but it is a sign which we cannot make available as a guide in a doubtful case, as the milk is not formed in many cases, until after delivery, when it does form during pregnancy, it is not until a period has arrived, which presents other modes of judging less liable for doubt.

Our attention is next called to The modifications of the Urine. The urine of the pregnant female is much altered in its character it contains, "A peculiar pellicle which forms on the urine of pregnant females when allowed to stand for a few days. It is whitish opalescent,

slightly glandular, & may be compared to the fatty substance that swims on the surface of soups when they have been allowed to cool." (Dunglisons Dictionary)

This is known by the name of Kiestine, & rarely fails to develope itself on the Urine of the pregnant woman. The chemical characters of the Kiestine will serve to distinguish it from all mucus or albuminous matter found in other Urine.

It is insolable in Alchohol, Ether, Water & Ammonia, and unlike albumen it is not soluble in Alkaline fluids, nor like mucus, in a mixture of soap and Ammonia, neither in boiling alchohol & other like fats. The Urine containing it does not coagulate by heat as albuminous Urine does, nor will it coagulate by the addition of Nitric Acid.

We cannot readily account for the presence of the Kiestine in the Urine of the pregnant woman; it has been thought that it is owing to the passage of the amniotic fluid, or a part of its elements into the Urine; while by others it is supposed to be intimately connected with the lacteal secretions.

The appearance of this peculiarity in the Urine is exceedingly variable, it generally appears in the course of the second month, and seems to be more abundant from the third to the sixth month, and then begins to deminish in quantity, so that at the ninth month we have a very small quantity.

We will conclude this portion of our subject, (The Rational Signs) by speaking of the various changes perceived in the general health of the pregnant female.

Pregnancy produces an effect on the general system, marked by distinct signs, as great febrile excitement, & an altered state of the circulation. This state is produced by local increased action, the nervous system is rendered more irritable & sensitive.

The Gravid Uterus acts by sympathy upon the organs of the Viscera, and likewise on some of them by its bulk and pressure.

When we consider the great relation which exist between the Uterus and abdominal viscera, by means both of the sympathetic & spinal

nerves, and the actual enlargement of the Uterine nerves we need not be surprised at the powerful effects often produced by pregnancy, on the different organs of digestion, particularly on the Stomach & Duodenum; thus we have Dyspepsia.

The effects of pregnancy vary much, both in degree, and in the combination of the symptoms according to the Constitution of the woman. The pulse becomes somewhat quicker soon after conception, and the temperature of the skin is altered; In the latter months of gestation the febrile symptoms in some instances are very troublesome; the pulse is permanently frequent, whilst the skin becomes hot and the woman very restless; the existence of this state must be intimately connected with an excited condition of those portions of the nervous system, which chiefly influence the action of the heart, and the changes in the animal heat.

Vomiting is often a frequent effect of pregnancy. it occurs most generally in the morning, hence the name, "Morning Sickness". This is not always frequent, others remain free, until near the close.

We have Dyspepsia present early after conception, then again not showing itself until the end of the fourth month, the appetite of the pregnant female is very peevish, and have a desire for things they did not like before, and in many cases have a great longing for food.

Spasms of the Stomach may occur, and is attributed to some irregularity in the diet, or to the influence of the mind; we have costiveness of the bowels, this is caused by pressure of the Uterus upon the rectum, producing a slow action of the bowels; they may be both open or constipated, and diarrhea may alternate with each other; these changes, we may say, proceed from Uterine sympathy, and the discharges are not altered from their natural state, except becoming thinner.

In connection with the changes of the viscera of the abdomen, we have an alteration in the bladder in some instances like the intestines, becoming more torpid than formerly and when its contents are expelled it is with difficulty & in considerable quantities at a time.

Incontinence of Urine is not uncommon at the end of gestation, and is produced by the pressure of the Uterus upon the bladder, by which the Urine is forced off involuntarily.

The Thoracic Viscera not unfrequently suffer during Pregnancy, as we have violent palpitation of the heart, it is a very troublesome sign, as its attacks are often sudden, and violent to a great degree. Sudden attacks of Syncope and Dyspnoea, attended with Head-ache, Adema of the lower extremities, with pain and Spasm.

Spasm of the Ureture, and the Grand Uterus itself may be effected in this way; and we have great disturbence of the mind connected with these Symptoms—

These latter signs, but they are more peculiarly diseases of Pregnancy, are subject to various modifications, but having now concluded the first grand division of our subject, We will next examine the Sensible Signs.

Sensible Signs of Pregnancy, These are derived principally by the "Touch" and by "Auscultation"

The "Touch" is the art of ascertaining the various conditions of the soft parts of the woman, By this means we can pretty well ascertain that pregnancy has taken place, and we also learn that the womb is enlarged, altered in form and containing something, but it is very difficult to know what it is without the aid of "Auscultation; unless we can see a spontaneous motion" in it; as that ballottement alone does not furnish us any sure evidence that the tilting is an embryo.

The "Touch" is practiced under various circumstances, as to the existence or stage of gestation, the danger of an approaching Labour, the progress of the Labour, the position and presentation of the fœtus, and many other things may be learned by this mode of exploration that do not belong to this subject.

We should to form our diagnosis, practice the Touch, both in the erect & in the recumbent posture, but in the first stage we may confine

ourselves to the decumbent, as in this situation we have the abdominal muscles relaxed, and we more easily determine the development of the Uterus. but in the more advanced stages both positions may be used indifferently, but most frequently the ballottment may be more readily noticed in the erect.

These explorations being made, we will examine the neck of the Uterus, and notice its modifications in form, consistence, or the dimensions of its cavity. Abdominal Palpations.

The exploration of the abdomen, aid us greatly in forming a correct diagnosis and should always be resorted to when we wish to know if pregnancy exists; we in this examination, meet many obsticles, as for instance the thickness of the muscles, or a constant pain in the hypogastric region, which prevents all pressure being made; but the last two obsticles being only temporary are overcome by a second examination at a little later period, but it is impossible to obviate the first. In most cases the Vaginal Touch & the Abdominal Palpations

are to be practiced together, we should therefore point out the signs furnished by this joint investigation, at the different periods of gestation; since the whole diagnosis during the third or fourth month, consists in the size of the Uterus & this can only be distinguished by this double exploration. The signs obtained by percussion are dull over every part occupied by the developed Uterus, but we may be misled in this sign, as the dullness during the fourth or fifth month over the hypogastric region, may be occasioned by the distension of the bladder, or any enlarged tumor; we distinguish the pregnated Uterus from that enlarged by disease, as in the first we have the tumor presenting smooth and rounded throughout, & does not present any of the irregularities noticed in the morbid state.

We now come to speak of the active movements, they are generally perceived about the fourth or fifth month, but the muscles of the fetus had contracted before this, and not noticed by the mother, but they may be detected by

placing the hand upon the abdomen; these move-
ments are very feeble at first, but gradually be-
come more characteristic & may be noticed as
two distinct signs; The one being produced by
the movements of the whole trunk, and are some-
times only partial, they are recognised by a
quivering, this is perceptable to the female,
while the partial movements produce very large
tuberosities, which are perceptable through the
abdominal walls; the other signs are small
short strokes, and are at times severe; these shocks
are produced by the movements of the thoracic or
inferior extremities of the child.

One would suppose that signs so distinct,
and clear to the mother, would be placed as an
infallable "Sign of Pregnancy", and yet in so many
cases they do not prove so, as in some cases we
have the intestinal movements, the rapid progress
of gas, partial & irregular contractions of the abdom-
inal muscles, causing movements very similar to
those we have mentioned, thus deceiving in forming
a true diagnosis.

These movements are more easily detected,

in cold water & placing it

by dipping the hand suddenly upon the abdomen. this rapid change of the temperature of the abdomen acting upon the infant causes it to move convulsively. We have another movement which we have not studied, that is by placing one hand upon one side of the belly, and striking with the other on the opposite side, the fœtus rarely fails to move actively, we have stated before that the movements were perceived about the end of the fourth month; this is not always the case, some women perceive them earlier than others, as the third month; while in others they are not noticed until the end of the sixth month. or even so late as the eighth.

We will next speak of the signs offered us by Auscultation. By the aid of Auscultation, either by the ear placed upon the abdomen, or by means of the Stethescope, we can hear two very distinct sounds, the sounds of the fœtal heart, & the bruit de soufflet, or bellows sound, this latter is also known as the cooing sound. The pulsations of the fœtal heart are perceptable in the fourth month, and are said to be more frequent than those of the mother;

as to the intensity of the pulsations they of course increase as the child grows older, but they have been found to be as strong in the sixth month as at term, we will not dispute this, but would suppose such cases to be unusual.

As regards the number of pulsations it is supposed that the fetal heart always beats with the same quickness, it matters not at what time we make our examination.

The beatings of the fetal heart are composed of two distinct sounds, the second is stronger and more sonorous than the first, but we can generally hear them both quite distinctly. We have it generally supposed that the perception of the pulsations in the fetal heart was a certain "Sign of Pregnancy". This examination not only aids us in our diagnosis, but it points out to us whether the foetus is dead or alive, and also the existence or non-existence of a twin pregnancy.

The bruit de soufflet this sound is synchronous with the maternal pulse

and is heard a little sooner than the sounds of the fœtal heart; it may be heard about the third month, and it is said to have been heard earlier than this, it undergoes very singular modifications during pregnancy, we may not hear it in many instances, and it is not uncommon for it to escape detection for a long time after having once heard it; then again it appears somewhat later; we may also hear two or even three pulsations, but we do not often find this the case.

The sounds are shifting in their locations, and ceasing suddenly from one point to another; the seat and mode by which this bruit de soufflet is produced is not agreed upon, but as we have before said, that it is synchronous with the pulse of the mother, therefore it would seem evident to us, that it is dependent upon, and connected with the maternal system.

We may take as a general rule, that there is no distinct sign, as to the existence of Pregnancy, but when we find the "Sensible signs" first fourth out, agreeing with the presence of the Rational ones, in a healthy woman, who can have no intention of deceiving us, it amounts to a certainty, as to the state of Pregnancy; but in a medico-legal case we should express our doubts, when the examination was an early one, and demand one at a more advanced period.

It is not always possible, during the early months of Gestation to prove that it exists; but we can, in a majority of cases, satisfy ourselves positively that it does not, for most frequently, the unimpregnated state of the organ, can readily be made out.

Having now brought this Essay to a close, and am to add, I have left too large a field for the critics pen: but being my first attempt, and compelled to write by the stimulus of necessity, will be sufficient apologies for its incorrectness.

It now remains for me to offer my thanks to the Professors of this University, for the advantages which I have derived from their own instructive lectures; and for their polite attention they have individually manifested towards me.

That they may long continue to exercise the duties attatched to their respective departments, with the same reputation, that has heretofore characterised their labours, is the sincere wish of their obliged and grateful Pupil.

An
Original dissertation
on
Acute Hepatitis,
Respectfully Submitted
to
The Examination
of the
Trustees Regents & Faculty of Physic
of the
University of Maryland
For the Degree of
Doctor of Medicine
By
Robert M. Hopkins
Virginia

Acute Hepatitis

Hepatitis, or inflamation of the liver, is comparatively of rare occurance in temperate, or cold latitudes; but is one of the most common maladies met with in intertropical or hot climates. Hepatitis may be divided into acute, and chronic; to the first division of which I shall proceed to devote my particular attention. The investing covering, as well as the substance of the organ itself, may be the seat of acute inflamation, the former is seldom the one most commonly met with in our climate. The acute form of this disease generally makes its attack suddenly, and with great violence, especially when it occurs endem-

-ically, which is frequently seen in hot latitudes. In a fully marked case, the symptoms are as follows, fever with pain, and a sensation of tightness in the region of hypochondrium, difficult respiration, pain increased by lying on the left side, and a cough, vomiting and hiccough, sometimes total inability to retain the recumbent position, the pain sometimes sharp, and pricking, at others dull and aching; in the former case, the inflammation of the pleura is supposed to be the part affected, in the latter the parenchyma. The above is the mode of attack most frequently observed in hot climates. In our temperate regions it usually comes on in a more gradual, and less violent manner. The patient complains of a sense

of weight and tension in the right hypochondriac, and epigastric, regions, slight febrile symptoms, loss of appetite, feelings of sluggishness, with but little disposition to move about. These symptoms continue for two or three days before the true character of the disease presents itself: the patient is then seized with a chill, which is followed in a short time by the stage of reaction, with hot and dry skin, pulse sometimes full, active and firm, at others, small, tense, and quick, urine scanty, and high coloured, sometimes presenting a yellowish orange red, or brown colour. Tongue covered with a thick white, sometimes yellow fur, the edges red and fiery. The bowels generally constipated, but sometimes diarrhoea attends

from the beginning, but this is rarely the case in this climate, in most climates however it occasionally happens that the attack commences with violent dizziness. The whites of the eyes, the skin about the face, neck and breast, almost always present a more or less jaundiced hue. The pain attending acute hepatitis frequently extends to remote parts. The parts generally visited by these sympathetic pains, are the breast bone, and shoulder of the right, and sometimes left side. When the pain extends to the right shoulder, the convex surface of the liver is supposed to be affected, and when the pain extends to the left shoulder the left lobe is supposed to be the seat of the

inflamation; these sympathetic pains are sometimes more severe than the pain in the liver. The existence of these sympathetic pains, as a symptom of Hepatitis has been denied by some, it is sometimes however the first symptom that the patient complains of. The pain in the right hypochondrium is always greatly increased by pressure, a similar effect is produced by lying on the left side, by deep inspiration, and also coughing. The patient does not always obtain most ease while lying on the affected side, for it occasionally happens that lying on the opposite side affords most relief, while in some cases (as I have before stated) there is total inability to retain

the recumbent posture. When there exists a dry cough, with more or less difficulty of breathing connected with considerable pain in the thorax this desease may be easily mistaken for pneumonia. The difficulty of breathing and cough are occasionally very much relieved by the occurrance of nausea and bilious vomiting. In many cases of this desease "there is a distressing feeling of anxiety at the epigastrium and praecordia, accompained with frequent sighing, particularly when pressure is made simultaneously on the right hypochondrium, and under ~~[illegible]~~ the right shoulder blade." At the end of the first week this desease generally evinces a tendency to terminate

in resolution, suppuration or the chronic form. When it terminates in resolution, a general amendment of symptoms takes place, the fever gradually subsides, skin begins to clear, appetite improves, urine becomes more copious, tongue cleans &c. When suppuration sets in, it is characterized by the following train of symptoms, cessation of pain, slight rigors, a feeling of weight and tension in the right hypochondriac region, accompanied by night sweats (sometimes very profuse.) clammy skin, and a sensation of sickening, with oppression in the praecordia. "In some instances nearly the whole of the right lobe of the liver becomes one enormous abscess" When adhesion takes place

between the parts surrounding the abcess and the internal walls of the abdomen, it generally points outward, in which case it may be punctured with a trochar, or by incision, its contents discharged, and the life of the patient sometimes saved; It occasionally bursts spontaneously, - when it points outward - discharging large quantities of matter. When it points beneath the false ribs, or in the epigastric region, it can be easily recognized by the appearance of a soft, doughy feeling, and more or less circumscribed tumour; But when it points higher up under the true ribs, the diagnosis is not so easily made, it being marked only by fulness in the inter-

costal spaces, and the pain and soreness being confined to that part. Adhesion sometimes takes place with the diaphragm and the diaphragm ~~and~~ with the lungs, the contents are then discharged into that organ, causing instant death by suffocation, if the the opening in the lung be a large one, but if small, so the matter can be gradually discharged, it may be ~~discharged~~ expectorated and the life of the patient might possibly be saved, but they seldom recover, even under the most favourable circumstances. In other adhesions between the abcess and the diaphragm, it bursts into the cavity of the pleura causing pleuritis, or into the cavity of the pericardium, giving

rise to fatal pericarditis. Adhesion occasionally takes place with the colon, and the pus discharged "per rectum". It sometimes, (though rarely) happens that the abcess bursts into the cavity of the peritoneum causing fatal peritonitis. Where adhesion has been effected to a considerable extent with any of the surrounding parts the abcess sometimes bursts in several places, thus discharging its contents into the same cavity through several openings.

According to the statement of some authors, this disease has terminated in gangrene and softening of the structure of the liver, this however has been denied by equally as good authority; and is a point which I believe still remains to be settled.

The diagnosis of Hepatitis is rarely attended with any great degree of difficulty; pain in the right or left shoulder attended with the usual symptoms is generally sufficient to enable us to distinguish it from any disease for which it is likely to be mistaken. The diseases most likely to be mistaken for acute Hepatitis are pleuritis and gastritis. "In pleuritis the cough and oppression in the chest are much severer than in Hepatitis". In the former the patient rests easiest on the side opposite the one affected, in the latter, the patient rests easiest on the affected side. In pleuritis pressure on the intercostal spaces greatly aggravates the pain, while pressure

which this is in contact with
pain, in hepatitis the reverse
is the case. Percussion giving
rise to great pain while pressure
on the intercostal spaces causing
little or no pain. When there
exists inflammation of the con-
vexity of the liver the
pain and difficulty of breathing
are both increased by lying on
the sound side as in hepatitis,
but in this case respiration is
performed by the diaphragm
and abdominal muscles, while
in hepatitis respiration is chief-
ly effected by the intercostal
muscles. "The pneumonic symp-
toms are always most conspicuous
when the convex surface of the
liver is inflamed." The diag-
nosis between hepatitis and
and gastritis is seldom diffi-

+ ded with difficulty; In inflamation of the stomach the pulse is always weak and contracted, in Hepatitis generally full and hard, in former great muscular debility from the commencement of the attack and vomiting, the stomach rejecting every thing that is taken into it, while in latter the muscular debility never occurs in the commencement of the disease, and although vomiting sometimes occurs it is not generally so easily excited by injuda as in former. In gastritis no pain is felt upon pressure on the hypochondriac region, but is on the epigastric, upon slightest pressure, in Hepatitis the opposite is the case. The posture is different, in former the patient

resting easiest when the body is flexed upon the pelvis, in latter he leans to the right side. Miasmata and high atmospheric temperature are supposed to be the principle ~~exciting~~ predisposing causes; placing the liver in a state which renders it liable to take on inflamation when exposed to any of the exciting causes, such as intemperate use of alcohol, atmospheric vicisitudes, exposure to cool damp night air, imprudence in diet, violent and long continued exercise, sudden suppression of chronic discharges, as hemorrhoids, violent rage, contusions of right hypochondrium, irritation from biliary concretions in the gall ducts, &c. The irritation caused by dentition has produced hepatitis in children.

Treatment. General and local bloodletting, cathartics, and counterirritants, constitute the principle and most reliable means in the treatment of acute hepatitis. Arterial excitement should first be reduced by abstracting blood from the arm, when the excitement has been sufficiently reduced in this manner, from fifteen to twenty grains of calomel should be administered, and this failing to operate in the course of two hours, should be followed by a dose of castor oil or infusion of senna and manna; it may be found necessary to repeat the venesection during the first two or three days, before the arterial reaction can be permanantly reduced.

Cups and leeches may also be employed with benefit over the right hypochondriac and epigastric regions, and will be found to procure great relief in subduing the local symptoms. The bowels also must be kept loose by active purgatives, in which calomel should constitute one of the principle agents. After the general arterial excitement has been reduced by local and general bloodletting, and the bowels freely evacuated moderate ptyalism should be speedily induced; blisters may then be applied over the region of the liver, and the bowels kept freely open. Should it be found necessary to keep the blistered surface discharg-

-ging it would be best to reapply the blister, instead of the irritating agents used for that purpose. Opium in conjunction with calomel is an excellent remedy not only for quieting any uneasy sensations but also by promoting diaphoresis, so necessary in this disease.
Antimony is an admirable auxiliary, in conjunction with calomel and opium in the treatment of this disease, "14 Calomel gr viii; Opii gr iii Pulv Antim gr xii Ms Fiat Chart vi." one powder to be taken every four or five hours.
Taraxacum, and Nitro Muriatic acid have been used with benefit. Nitro Muriatic acid should never be given while the patient is taking calomel, unless you are desi-

rous of terminating his existence. When the inflamation has terminated in suppuration the employment of calomel with a view to its general effect is highly improper.

When suppuration has fully set in, "if the local symptoms and the state of the pulse and of the system require it, the application of a few leeches in the vicinity of the tumefaction will be generally serviceable; afterward poultices should be assiduously employed, with a view of promoting the external pointing of the abcess." While suppuration is going on, the bowels must be gently evacuated by a few grains of calomel, or a small dose of some of the neutral purgative salts,

When the abcess points outward, and we ascertain that adhesion has taken place, we should open it by a free incision and allow its contents to be discharged, We ascertain that adhesion has taken place, by the presence of a circumscribed blush on the top of the tumour, and also by fluctuation. The following practice has been recommended for the purpose of promoting external adhesion, but with no success, as far as has yet been ascertained: make an incision over the tumor through integument, superficial facia, and muscles, down upon the peritoneum, this should then be kept open with lint, It was thought that this would produce sufficient inflammation

to promote adhesion, and also cause the abcess to point outward. After the abcess has discharged its contents through a favourable opening, the best remedy that can be used is nitro-muriatic acid, both internally and externally, externally in shape of baths. When the abcess opens into the lung, benefit may be derived from nitric acid in combination with tinct. Olii, Hyoscyamus, or conium. When under the above named circumstance the powers of life begin to fail, night sweats become profuse, and the digestive organs fail, some of the tonic bitters in conjunction with nitric acid, and extract of conium may be used with benefit.

An Inaugural Address.
on
Typhoid Fever,
Respectfully Submitted
to the consideration
of the
Provost, Regents,
and
Faculty of Physic,
of the
University of Maryland
for the degree
of Doctor of Medicine.
By
Jos. A. Eschbach.
of Maryland.

Gentlemen of the Faculty.

In accordance with the requirements of the School, I present to your consideration as a candidate for the degree of Doctor of Medicine some few remarks upon

Typhoid Fever.

This disease is also known under the name of Enteric, Continued, Typhus mitior, Nervous Fever, Abdominal Typhus, Entero Mesenteric Fever, Dothinenteritis, Follicular enteritis. It is characterized by a variety of symptoms which render it more or less complex, but having certain distinct signs whereby we are able to distinguish it from all other diseases of the same nature as being a distinct disease. It is to the wise researches of Louis that we owe this great distinction. He attached the name of Typhoid to this Fever, whilst many writers recognise it under

the name of Continued Fever. Dr Wood gives it the name of Enteric Fever, but he does so as he says with some diffidence. The name Enteric expresses the seat of the disease as being in the intestines and for this reason he gave it the name of Enteric. Typhoid Fever as it usually occurs in this country sets in either with the usual premonitory symptoms of headache, pains in the limbs, uneasiness, creeping chilliness, interrupted by flushes of heat, accelerated pulse, and a general sense of languor and dullness. The tongue upon inspection exhibits a whitish fur upon its surface and the appetite is more or less impaired. These symptoms may continue for a week before the patient takes to his bed. Slight remissions occur during this period, but the rigors do not come on after the disease has fully commenced. Diarrhoea now sets in and this is a clear indication

to the physician to beware of Cathartic medicines. The disease having now fully commenced we have great frequency of pulse, a hot and dry skin, face flushed, pains in the head, complete loss of appetite, great thirst and extreme prostration. The countenance is extremely anxious and indicates great suffering, the patient complaining principally of great pain in the head and inability to sleep. Epistaxis occurs but is very slight and may need no interference, it occasionally however may be so excessive as to require plugging of the nostrils, but this rarely. These symptoms go on increasing from day to day. The pulse becomes more frequent, the tongue assumes a dry clammy appearance upon its surface, the complexion becomes more dusky, the stomach is somewhat irritable and the diarrhoea more frequent. There is tenderness upon pressure in the right

Iliac region with tympanitic distension of the abdomen indicating a gurgling sound upon pressure by the hand. Bronchitis now sets in, characterized by a dry cough accompanied with slight expectoration. The urine may exhibit no change or may be high coloured and offensive. This brings us up to the ninth day of the formation of the disease. The symptoms now become more numerous. If the surface of the body be carefully examined a slight eruption resembling flea-bites will be seen, appearing at first upon the abdomen and chest, then extending to the neck and limbs and sometimes even to the face. This eruption is known under the name of rose coloured eruption and occurs in this disease alone. It may be distinguished from the flea-bites by their not being so red and also by ascertaining ~~whether~~ whether the patient had been

exposed to their noxious influence. We also are enabled to observe upon close inspection another peculiar sort of eruption which is termed Sudamina consisting of small vesicles situated upon the neck and other parts of the body, but more frequently upon the former. The nervous symptoms now become more aggravated. Delirium or Stupor now supervenes upon the severe headache already noticed, accompanied with unpleasant ringing and buzzing sounds in the ears occasioning more or less of deafness. The eyes are often injected. The patient upon being asked to protrude his tongue does so with great difficulty, and is unable to withdraw it when protruded, excepting with difficulty. The disease has now reached its acme. If it is to terminate unfavorably, the symptoms that indicate its final termination are the following. The tongue is incrusted with a brown or black coating which is dry, gashed, and

sore; dark sordes collect upon the teeth, gums and lips. The pulse is exceedingly frequent and feeble. A peculiar unpleasant cadaverous odour usually exhales from the body infecting the whole chamber or ward in which the patient is confined. Subsultus tendinum or twitching of the tendons at the wrist and also upon the face occurs. The patient on account of his great feebleness and prostration whilst laying upon his back unconciously slips down to the foot of the bed. He picks at the bed clothes, or at imaginary objects in the air, is profoundly comatose, muttering half formed sentences, or he may continue extremely delirious attempting to rise from bed and leave his chamber. Involuntary action of the bowels from great weakness, retention of urine, hemorrhage either from the bowels or nostrils indicate the rapid appro-

-ach of death. The pulse now gives way, being frequent but feeble, flutt-ering and scarcely perceptible; the extremities are cool and clammy and the whole surface is covered with a clammy sweat; the abd-omen is often enormously disten-ded; hiccough sometimes occurs; the countenance becomes Hippocratic in its aspect and life passes away quietly and without struggle. At an earlier period however, if death occurs it may be preceded by convulsions and violent struggles. If the case is to terminate favo-rably, we have a general mitigation of all the symptoms. The tongue becomes moist and clean towards the edges, the pulse becomes fuller and less frequent. The sur-face of the body is less dry and cooler than previous. There is a

gradual cessation of the stupor and the patient becomes more conscious and sensitive, manifesting some incl-ination for food and appearing more concerned about his fate. Convalescence may go on increasing rapidly to a happy issue or recovery may be slow and tedious with accidental complications. The duration of this disease is uncertain. Death may take place on the sixth or seventh day; but this is very rare. Generally it occurs in the course of the second or third week, and sometimes lasts till six weeks, or even later. Convalescence may take place on the eighth or ninth day but rarely before the third week; those of a mild char-acter may run on to the thirteenth or fourteenth day before convalescence is established, while those of a severe nature rarely show symptoms of con-

-valescence before the third or fourth week. Recoveries have happened after the sixth week. The disease may be stated to average 60 days but can have no fixed limits. With regard to the diagnosis of this disease, it is evident from the symptoms already enumerated that it has certain characteristic marks whereby it may be distinguished from all others. The most prominent of which are diarhea, tympanites, the rose colored eruption, sudamina, Bronchitis, Hemorhage, nervous symptoms. Diarhoea according to Louis is an almost uniform symptom having been absent only in three cases which he had witnessed. In the cases at the Baltimore Infirmary I do not recollect of ever having seen this symptom wanting. This strong tendency to diarhoea precludes all necessity for Cathartic medicines, the

mildest cathartic will act powerfully, and should therefore be carefully selected. The diarrhoea may precede the fever or may not occur till after the fever has fully commenced and has existed for some time. The number of stools varies being either one or twelve during the 24 hours. They are apparently healthy in appearance and may be looked upon as a peculiar feature of this disease. This diarrhoea is an evident sign of the seat of the disease. I do not mean to assert that diarrhoea may not occur in the progress of any other malady, but we find it nowhere so constant and uniform occurrence as in this affection. Tympanites in a greater or less degree is an almost constant attendant upon this disease. I have noticed it ~~in~~ in every case exhibited at the Balto. Infirmary, it may not at first be very conspicuous but can readily be detected on percussion

At a later period it is noticed by the eye without the aid of percussion. It consists of an accumulation of air in the large intestines, distending the bowels and pushing the diaphragm upwards against the respiratory organs causing difficulty of breathing, this is a distressing symptom and is proportionate in severity to the other symptoms. The rose-colored eruption is the great distinguishing feature of this disease and occurs in almost every case. Chomel refers to it as having occurred in one fourth of all the cases he had met with, and Louis, as before stated, noticed it in every case with the exception of three, which he had examined. This eruption consists of small red spots round in form and about an inch in diameter, slightly raised above the surface, disappearing upon pressure and again appearing

upon the removal of pressure. They occur most usually upon the abdomen and chest but may extend to the limbs, neck and face. The latter however is rare. They make their appearance from the 7th to the 15th day from the commencement of the attack, occurring in successive crops, each crop lasting from 3 to 4 days, then disappearing to make way for successive crops. The entire eruption lasts, according to Louis from 3 to 15 days. Petechiæ consisting of blood extravasated in the Skin also occur in this disease, not however as frequent as the rose spots and distinguished from them by being of a more livid color, not appearing above the surface and not disappearing upon pressure. These belong more particularly to Typhus Fever. Sudamina which are also of peg-

-ent occurence, although not entirely characteristic of this disease, as they occur in other febrile affections, consist of small vesicles about the size of a pin's head, of a circular form and so transparent as not to be easily detected excepting by close inspection and viewed obliquely. They occur usually on the neck, upper part of the chest, and in the axilla; occuring about the fourteenth day being somewhat later than the rose-colored eruption. Cough and the usual signs indicative of Bronchitis are very common in this disease. The cough may be slight with little or no expectoration, accompanied with dryness of the mouth and soreness of the chest. Dry sonorous Rhonchus may be detected by auscultation. Hemorrhage occurring from the nostrils is a frequent symptom and is very characteristic of this disease

The epistaxis is in the great majority of cases but slight and then demands no interference. It may however as before remarked be so excessive as to require plugging of the nostrils, but this seldom is necessary. Hemorhage from the bowels occuring at a later period is much more important and requires more careful watching in order to prevent injury by its exhausting effects. The nervous symptoms which occur in the course of this disease and which constitute so distressing and troublesome a symptom consist of Headache, dullness of the mind with entire absence of intellect, and delirium. The headache may affect the whole head or be confined only to certain portions as the forehead and eyes or back part of the head. It may be so excessive as to cause pain upon the mere motion of the eyes. The headache after lasting for several days

is supplanted by Delirium either mild or severe in its nature; it gene-rally is mild indicating a loss of pow-er rather than any irritation of the brain. The delirium is manifested more by wandering of the mind than by any other observable symptom. In the latter stages it is manifested by the low muttering half-articulating sounds so frequently heard. Cases do occur in which the delirium is very violent, the patient arises from his bed and attempts to leave his chamber unless restrained; he should therefore be care-fully watched. Hardness of hearing with tinnitus aurium is also of freq-uent occurrence. Should blisters & sinapisms have been used in the earlier stages of this disease their effect is now evinced by the slough-ing of the skin at those parts where they were applied causing an exca-

-dingly bad complication: This tendency to sloughing is probably owing to the diminished Capillary Circulation in the parts. In consequence of the great insensibility and loss of muscular action in the bladder, urine may continue to accumulate in that organ and constitute a troublesome symptom if not attended to, the bladder therefore should be carefully examined at various stages of the disease and when clearly indicated by dullness on pressure over the pubes, the catheter should be used. If the urine be allowed to increase the distension may be so great as to endanger inflammation or rupture of the coats of the bladder. We come now to consider the anatomical characters or the lesions found after death from this disease. The anatomical characters which distinguish this disease from all others and which is a constant

result and as characteristic of this disease as the eruption of Small Pox is to that disease, consist in inflammation, ulceration, thickening and softening of the elliptical patches of aggregated mucous follicles in the Ileum, known under the name of the glands of Peyer. Louis distinguishes two varieties, the hard and soft patches. The hard patches may undergo resolution or ulceration; the soft always ulcerate. The ulcers are not necessarily fatal, for dissection has revealed in them a tendency to heal. The glands of Brunner known also as the solitary glands situated in the duodenum undergo the same alterations. The aggregated glands are however more frequently affected than the solitary. The mucous membrane of the Ileum between the affected glands also undergo change exhibiting infiltration. The mesenteric glands are also a constant seat of disease. Those

corresponding to the morbid patches are most affected. The glands are reddened, enlarged and softened and also exhibit traces of ulceration. Other organs are more or less affected, but not as constant and as characteristic of this disease as those already mentioned. The Pharynx Oesoph. -agus, mucous membrane of the stomach, spleen, liver and brain all exhibit more or less of diseased action.

Causes. - With regard to the causes that give rise to Typhoid Fever, nothing is known. There seems however to be a greater tendency for an attack of this disease among those who are crowded together in ill-ventilated apartments, with unwholesome nourishm- -ent and improper clothing and most frequently visits the narrow streets, lanes and alleys of large cities. Young persons coming from the country into large cities to reside are

very apt to be attacked with this disease. It however is restricted to no place or confined to no set of individuals. It attacks alike the old and young the male as well as the female. It may occur in the pure air of the country as well as in the hot unwholesome air of the city. With regard to the contagiousness of Typhoid Fever, there is a considerable diversity of opinion, most writers however are of opinion that it is not strictly contagious, although the fact of a person previously in good health to remove from the country to the city where the disease is prevailing and then to be attacked might be a strong proof of its contagiousness: but I suppose that might be accounted for either by the peculiar susceptibility of the patient or the great change which he has undergone in removing from a comparatively

healthy country to a place where the disease existed, his system becoming susceptible of change as his location was changed. This disease occurs most frequently between the ages of 15 and 30 years and more frequently in Autumn than at any other season of the year. It never occurs twice in the same person, this may account for its comparative rare appearance in the aged, they having probably been attacked before having attained middle life. This some consider an argument to prove its contagiousness. Dr. Wood seems to think that there is an inherent disposition in some persons to be attacked by this disease, analagous as he says, in some measure, to the tuberculous, gouty and the rheumatic disposition. But in this I cannot see the true import, as we believe all persons liable to this disease upon the existence of an

epidemic and the state of the system at the time rendering it liable to be attacked. If there be any ~~separate~~ separate and distinct cause for this disease I believe it is as yet unknown to the profession. - Diagnosis. - This disease as mentioned before has certain characteristic signs whereby we distinguish it from all others. I may mention as some of them, the slow and insidious mode of attack, the diarrhoea, the dull expression of countenance, the dusky hue of the face, the epistaxis, the cough with Bronchitis, and after the 7th or 9th day the rose-colored eruption, the Sudamina, tympanites, deafness, delirium &c. The duration of the disease and the enlarged spleen may also favor the diagnosis. All these symptoms are however not necessarily ~~fatal~~ present in every case. It is not necessary that they should be in order to form a correct diagnosis. Typhoid fever may be confo-

unded with Remitten or Bilious Fever. They may however be distinguished by their remissions and bilious vomiting with a sallow hue of the complexion and by the absence of diarhœa, tympanites, rose-colored spots, epistaxis &c. Examination after death will confirm the diagnosis. There is in Remitten and Bilious Fever no changes in the Elliptical patches of Peyer and in the solitary glands of Brunner. The two diseases may however be commingled making the diagnosis more obscure, the bilious fever assuming the Typhoid form. There is another disease however with which Typhoid Fever may be more easily confounded. I allude to Typhus Fever. Louis himself believed the two diseases identical. There is however sufficient difference to consider them as distinct diseases. Typhus Fever commences less insensibly and is of shorter duration than Typhoid. Constipation of the bowels

exists in Typhus whilst we have diarrhoea in Typhoid. Hemorrhage from the bowels Seldom occurs in Typhus, whilst it is of frequent occurrence in Typhoid. Epistaxis is less frequent in Typhus. The eruption in Typhus differs from that in Typhoid. It generally commences earlier in Typhus and is less elevated above the surface and not so oval in form; it is of a darker hue and does not disappear on pressure. The eruption is also more abundant in Typhus and is not confined to the chest and abdomen but is often diffused over the whole surface of the body. In Typhus Fever there is no tympanites, the abdomen being entirely flat. In Typhus we have consolidation of the posterior part of the lungs whilst in Typhoid we have bronchial inflammation. The lesions detected after death are different in the two diseases. The alterations in the glands of Peyer and in the solitary glands which are always present in Typhoid are never detected in Typhus. The spleen is less frequently enlarged in the latter. There seems also to be a variation in regard to the lesions

attacked by the two diseases. Typhoid rarely attacks the old, whilst Typhus respects no one class. Typhus is certainly contagious whilst Typhoid is not. Prognosis.- This is a grave malady and the prognosis will depend very much upon the season of the year and the person attacked. The mildest cases are not free from danger. The prognosis is more favorable in persons under 15 years of age. Out of 140 cases reported by Louis 52 or more than one third terminated fatally. It is however more fatal in some epidemics than in others. Whatever may be the severity of the attack no case should be considered hopeless. Even the most dangerously ill from this disease may recover. The prognosis therefore should always be cautious. We come next to consider the treatment of this disease. We must be impressed at the onset with the fact that this disease has a certain course to run, therefore our object must be not to endeavour to cut short this disease but to assist nature in gradually restoring the diseased condition. We may therefore divide the treatment into 4 Indications.

1st. Indication.. To remove all sources of irritation
2d.. To moderate undue vascular excitement.
3d. When the powers of life begin to fail to use stimulants and tonics.— 4th To counteract inflammation arising in any organ or tissues of the body. To fulfill the first indication, the patient should be kept in a well ventilated apartment, secluded from light and noise, the temperature should be kept pleasant, and all the attention paid him which is requisite to the demands of the disease. A cathartic should be administered in order to free the bowels of any irritating substances which might be present. the mildest are of course to be given. 10 or 20 grs of Calomel combined with 5 grs of Rhubarb or a drachm of Castor oil with 15 drops of Laudanum will answer the purpose very well. If nausea exists a mild emetic may be given. Ipecacuanha is probably the best. The bowels during the entire attack should be carefully watched, and aperients as Epsom salts or a Dializ powder should occasionally be administered. Magnesia will be found serviceable when there exists acid in the stomach. Should

the irritability of stomach be so great as to prevent the action of cathartic medicines from being taken into the stomach, the same indications will be fulfilled by mild enemata. In the latter stages oil of turpentine may be advantageously combined with the enemata, particularly when tympanites exists. The 2d indication. To moderate undue vascular excitement. When the pulse by its fullness and strength indicates a determination of blood to the head, we should resort to bloodletting from the arm to the amount of eight, twelve or sixteen ounces according to the degree of fullnes and strength of the pulse. I believe however that general bloodletting is rarely called for in this disease, the local application of that agent accomplishing all that is necessary. Cups may be applied to the back part of the neck and temples, and leeches over the epigastrium when there exists tenderness on pressure. Cold applications to the head and other parts of the body are extremely agreeable to the feelings of the patient and often highly beneficial

This may be practised by sponging the body with cold water, and applying bladders of ice to the head. Small pieces of ice placed in the mouth and sucked will be found useful to alleviate thirst. Warm fomentations to the abdomen as mush poultices and blisters are highly serviceable to alleviate pain. To moderate the diarrhœa if excessive, astringents should be used as small doses of Opium and Ipecacuanha singly or combined with Kino, Ext. Rhatany or acetate of lead. Sweet Spirits of Nitre, Hoffmans anodyne, or Aqua Camp. -hora will be found useful to alleviate wake- -fulness and general uneasiness. Clysters are also serviceable. Refrigerant diaphoretics should be employed from the very commence- -ment. Antimony from its depressing effects and proneness to irritate the bowels should be carefully administered. Potassæ Citras in the form of neutral mixture or effervescing draught is preferable and may be given through- -out the entire disease. If the bowels early in the disease should be quiet and stomach

not irritable with a pretty firm pulse we may combine Tartar emetic with the neutral mixture. The following prescription as recommended by Prof Chew will be found serviceable.

℞. Potassæ Citras ℥i
Tart ant et Potass gr iss
Aqua -- ℥vj.-

Dose.- Tablespoonful. When nervous symptoms begin to appear Nitric Æther may be used. For the purpose of procuring sleep Dover's powder may be given every night or every other night; or a small quantity of Opium and Ipecac. in pill, these are however contraindicated when there exists determination to the head. Mercury ~~however~~ in the latter stages will be found highly serviceable. When the secretions become deficient as exhibited by a dry tongue and skin and scanty urine, with a moderate pulse, slight delirium and a considerable cessation of the energy of the vital action, Mercury given so as to affect the gums will exhibit a beneficial agency. Besides its power of restoring the secretions its antiphlogistic properties

will also be requisite in counteracting whatever of inflammation may exist in any organ. It is also supposed to arrest the progress of disease in the glands of Peyer, and to restore the inflamed patches. Mercury in these cases should be given in small doses and may be given either in the form of the Sub Muriate or blue mass and combined with Opium and Specac. One grain of Calomel may be given every hour or two combined with the $\frac{1}{6}$ of a gr of Specac. and the same quantity of Opium. Oil of Turpentine is highly recommended in the treatment of this disease. It may be employed in the latter stages when the tongue is dry and the pulse not strong, it acting particularly as an alterative and slight stimulant to the ulcerated surfaces in the intestinal Mucous membrane. It may be given in doses of 5 to 20 drops every hour or two in emulsion with Gum Arabic, loaf sugar and water, a few drops of Liquet Opii may also be added to prevent its disturbing

the stomach or bowels. The oil should not be too hastily omitted when once given and improvement following, but the quantity should be gradually diminished. We come now to fulfil the 3d. Indication viz When the powers of life begin to fail to use Stimulants and Tonics. Of these the most efficacious are Sulph of Quinia, Wine and Carbonate of Ammonia. Sulphuric Ether will be found serviceable when there is a sudden and great prostration of the System. Opium by its stimulant property and power of relieving nervous disorder and procuring sleep will be found highly serviceable in these latter stages and may be given when there exists no tendency to an increased action of the cerebral function. It is given in the dose of half a grain or grain every 4. 6 or 8 hours. External rubefacients are also necessary to relieve coldness of skin and debility. For this purpose hot oil of Turpentine, Cayenne pepper and brandy may be

rubbed in upon the extremities, Sinapisms and blisters both to the inside of the thighs and extremities may also be used, care should however be taken not to keep them on too long as sloughing of the skin might be the consequence from the great loss of strength and capillary action in the parts. With regard to the 4th and last indication viz to counteract inf-lammation arising in any organ or tissues of the body, we may when the brain exhibits signs of inflammation by obstinate delirium or coma shave the head and apply a blister. Hemorhage of the bowels may be arrested by Acetate of lead and Opium or Extract Kino &c. as before mentioned. If Erysipelas supervenes we may use the Liniment Iodine Peritonitis from intestinal perforation may be combatted by large doses of Opium. The position of the patient in bed should be carefully attended to in order

to prevent bed sores as much as possible which constitute so troublesome and distressing a complication, he should frequently be shifted about and pillars placed under the body and the parts bathed occasionally with spirit &c. The bladder should be examined every day so as to avoid accumulation of urine, and the catheter should be used when necessary. When convalescence begins to be established care should be taken not to allow too much food to be taken as the least inconsistency in diet might be attended with fatal consequences. Throughout the entire disease very small quantities of food only should be allowed and these of a liquid form as Arrow root barley water, solution of Gum Arabic &c. In the latter stages more nutritious articles may be allowed as Arrow root of a more gelatinous consistence than previous, or Sago or Tapioca in

the same form.-

The treatment of Typhoid Fever is far from being satisfactory. We must not as I have before stated expect by any means which our art can afford to arrest the progress of this disease. We can only expect to assist nature in her endeavours to supplant the diseased action upon which the disease depends, and any other course of treatment pursued with any other intention than this cannot fail to be injurious and finally to prove fatal to the patient. The expectant plan of treatment is therefore the only wise and judicious one to be pursued in Typhoid Fever.

Jos. A. Eschbach

Feb 14th 1854.

An

Inaugural Dissertation

On

Asthma

Submitted to the examination

of the

Provost, Regents and Faculty of Physic

of the

University of Maryland

for the

Degree of Doctor of Medicine

By

Isaac H. Wood.

of

Maryland.

Asthma

In the long catalogue of diseases with which mankind is afflicted, there are but few which create more anxiety and dread to his [illegible] [illegible] of this [illegible]. The [illegible] of the affection [illegible] [illegible] entitle it to the careful notice of the student of the healing art; and whether curiosity prompts his inquiries into its nature or philanthropy or ambition of distinction [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] that will disarm it of its much dreaded power of continuation or returning; we know of but few subjects within the wide range of our particular field for investigation which offer him a better opportunity for gratifying his motives than the present subject

Phenomena and progress of the Laryngism

This disease which was known to the Greeks and Romans and which by them has been well discussed is usually divided into three classes or varieties. The spasmodic or convulsive asthma, the most common variety which attacks all but more frequently the nervous, is the variety to which I shall draw your attention more particularly. There is often some degree of warning given of the approach of an asthmatic laryngism not however by thoracic symptoms but by those of indigestion, heartburn, flatus, itching of the skin, pain over the eyes and stiffness. The attack generally occurs at night and the patient may be aroused from his sleep by a severe laryngism. To those who experience or witness a paroxysm for the first time, it appears one of the most formidable diseases to which man is liable. The patient is oppressed by a tightness through the breast which so impedes respiration as to threaten immediate death. He stands in an erect posture and flies perhaps to a window for air, for sometimes his breathing

is performed with great difficulty, he gasps slowly and with a wheezing noise. Sleeping is painful and difficult and there is also a disposition to cough. In this state of deep distress the patient continues till the approach of morning. A remission then generally takes place. However suddenly the fit may begin, it will pass off slowly and by degrees: the breathing becoming less laborious and coughing and speaking less difficult. In the generality of cases a copious expectoration of mucus (according to Bree it is sometimes blackish, at others sweet or saline or slightly tinged with blood) at length takes place and with it the paroxysm ceases and the patient falls asleep. During the paroxysm the pulse and heart usually continue of the natural standard. The surface of the body is pale, the muscles appear shrunk and there is considerable flow of orbit urine in many cases (according to Bree) in some cases expectoration is not so copious as in others. This which in itself is regarded as of little importance, was by the humoral pathologist

advanced to a distinguished rank among the symptoms of the disease and formed the groundwork of its division into the two stages of dry and humid asthma. But to continue with the paroxysm — during the next day the patient experiences some remaining sense of stricture across the breast and any exertion of the body increases his uneasiness. At night the distressing difficulty of breathing returns and in this manner he is tormented for three or four days, the symptoms becoming each day milder and soon gradually yielding, he enjoys his usual rest without further disturbance.

One of the most striking peculiarities of this disease is that once it attacks a person it is very likely to [illegible] [illegible] and when the asthmatic disposition is very strong to be brought on at all times by some of the circumstances which I shall presently [illegible]. [illegible] to observe however, that a great degree of difficulty of breathing, particularly on ascending a hill or flight of stairs is [illegible] during the

[illegible] and [illegible] is always attended [illegible] or [illegible] with [illegible] caused by a [illegible] accumulation of [illegible] in the [illegible] tubes.

Persons subject to this disease acquire a [illegible] expression of countenance easily recognized when once observed.

Predisposition. Of the predisposing causes to this disease little is known. Whether [illegible] or otherwise I know not, but it has been ranked as an hereditary complaint not confined to any particular age or sex, the period of youth and manhood being most prone to it. It may sometimes be connected with a deformed chest.

The asthmatic disposition generally exists along with other marks of an irritable constitution. This general principle pervades the whole pathology of asthma.

Exciting Causes. In many cases the exciting causes of the paroxysm are sufficiently perceptible and exhibit the most singular varieties. Dr Bree considers them as qualifeed by their importance to become the basis of a practical division of asth-

-matic cases and refuses to be treated by any difference in the phenomena of the asthmatic paroxysm calculated to attain this object. From this we may learn to estimate the claims upon ~~upon~~ our attention which the exciting causes of asthma possess.

First. In the predisposed, an asthmatic paroxysm is frequently the result of particular states of the atmosphere varying however in different cases. One man finds his breathing easy in the most crowded and smoky parts of the city and has a paroxysm the moment he is surrounded by the pure air of the country. Some asthmatics can go with impunity into a hot and crowded room, while others would shun it as the sure prelude to a paroxysm. Some have their fits in summer and others dread the approach of winter.

Second. Various kinds of irritating matter conveyed to the lungs by the air and occasioning a fit of sneezing with in those predisposed to ~~consume~~ asthma bring on a paroxysm. Perfumes - tobacco smoke, dust and vapors of sulphur, have had

this effect in many cases.

Third. Asthma may often be occasioned by whatever quickens the motion of the blood generally or determines it particularly to the lungs; such as severe exercise, loud speaking, exposure to cold and suppressed evacuations.

Fourth. Asthma may occasionally be induced by causes which cannot operate but through the medium of the nervous system; such as the anxieties of business or the exertion of deep thought.

Fifth. A very frequent and important cause of the asthmatic paroxysm is a loaded, weakened or otherwise disordered state of the stomach and bowels. We cannot be surprised at this, when we reflect that how generally dyspeptic persons having no asthmatic diathesis complain of difficult breathing, especially in the horizontal position, thus requiring the same treatment as asthma, vomiting and purging. Fasting, drinking largely of spirituous or fermented liquors of tea; eating between meals, all food of difficult digestion as smoked meat, pastry, fat pork, beef or water-

fowls; raw vegetables should be avoided, for they may be the cause of producing a fit of asthma.

Sixth. I have already says Dr Free had occasion to allude to the great law of convulsive motion namely "that whatever be its origin the certain consequence of its repeated attacks will be that increased mobility of the whole frame which occasions a renewal of diseased action by the mere force of habit." Then Prunceble [illegible] applicable to the asthma which fixes itself in the constitution, with an inveteracy, equalled only by that of epilepsy. Yet with all this, asthma cannot be considered as a disease of danger, no case where it proved fatal being on record, and though it assuredly in some cases lays the foundation for other diseases, yet this is not frequent; many confirmed asthmatics have accordingly attained a good old age. The gradual inroads however, which, when uncontrolled it makes when the constitution would [illegible] all the enjoyments of life and should be sufficient to induce the patient to submit to any [illegible]

that [illegible] to explain the cause. Physicians in all
ages have united their ingenuity & diligence
to prepare the proper remedy for this disease
true nature or proximate cause; much labor and
time have been given to both questions, but except
[illegible] the
the bronchial tubes I have usually been con-
sidered as the primary & actual but a
difficulty. I have experienced in reconciling
the notion of spasm & contraction to this
peculiar anatomical structure, nor does this
appear to have been hitherto overcome. In the ex-
ercise of the [illegible]
I may be allowed so to term it, every muscle
that can assist in [illegible]
the respiratory [illegible]
[illegible]
[illegible]
bronchial tubes which all admit to constri-
tion in certain [illegible]

the asthmatic paroxysm. Dr Cullen [illegible] that it is the cause; that the [illegible] [illegible] of this disease and the effusion of mucus [illegible] [illegible] [illegible] [illegible]

Dr Bree on the other hand joins with the old humoral pathologists in maintaining, that the convulsive effects of the asthmatic are only secondary phenomena being set up with a view to throw off an excessive secretion from the mucous membrane of the bronchia. This will conclude this question of speculation.

Diagnosis. Asthma is [illegible] from catarrh by there being no fever and the fits being spasmodic and [illegible] at long intervals in the former. Catarrh seldom ends in asthma [illegible] [illegible]

The [illegible] of asthma [illegible] [illegible] [illegible] [illegible] [illegible] produced by the retardation of the return of [illegible] [illegible] [illegible] [illegible] [illegible] head to the right side of the heart by the effusion of [illegible] [illegible] [illegible]

[illegible] Asthma [illegible] and [illegible]
[illegible] of [illegible]
[illegible]
[illegible] may cause delirium and insanity.

Asthma [illegible] introduced into the [illegible] by [illegible], [illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
desperate spasmodic form and from a [illegible]
[illegible]

Withers speaks of hams occuring in the [illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
diseases

The connexion of diseases of the head with asthma [illegible] from the fact that asthma occurs more frequently during sleep, ~~a state~~ a state which is connected with an increased fulness of the vessels of the head; this observation is important as by an ac- [illegible] the same is true of epilepsy, which occurs in the night; [illegible] the senses are lost in sleep the patient by awaking can prevent it, an important observation as it points to the causes of both those diseases, [illegible] therefore as numbness or pain in the hand or [illegible]

[illegible]

[illegible] latter.

Asthma may however sometimes be combined with pleurisy; then it presents a formidable appearance and requires an accurate knowledge of the symptoms of both to form a correct diagnosis.

Asthma [illegible] [illegible] [illegible] [illegible]
[illegible]
[illegible]
[illegible] Asthma [illegible]
it come on as the other, after sleeping. In the catarrhus bronchiorum there is a dull deep seated [illegible] not to be found in asthma. Those who have this [illegible] generally [illegible] [illegible] and winter coughs. The latter disease however is not periodical. The diaphragm also descends more easily than in asthma, the difficulty in breathing often a [illegible] very considerable and sometimes entirely ceases before any expectoration [illegible] one expectoration coming on affords great

[illegible] though without any sudden abatement of [illegible]

[illegible]

Prognosis. This depends in a great measure upon [illegible] if it proceeds from tubercles [illegible] weakened subject, worn out constitution with a scrofulous habit the disease is more or less [illegible] according to the intensity of each [illegible] free after the paroxysm and the cough with expectoration not violent nor obstinate in its duration [illegible] it can be [illegible] and [illegible] constitution

[illegible]

[illegible]

sometimes the [illegible] by diarrhœa [illegible] or œdematous legs. If the diarrhœa be moderate and the patient not too weak it may be suffered to continue for a short time, though generally it is dangerous and should be arrested by opiates and [illegible]

<u>Treatment</u> [illegible] itself like that of [illegible] two great [illegible] to be [illegible] during the [illegible] intervals. The relative importance of these was long misunderstood. Dr Cullen distinctly says that [illegible] alternative. [illegible] that the [illegible] of asthma [illegible] little relief and that the main object of medical treatment is to prevent the recurrence of fits and thus to effect a permanent cure of the disease. During the paroxysm the indications [illegible] are to lessen the distension of the blood [illegible]

the lungs and to promote expectoration. Blood letting should seldom be resorted to in these cases as it has a tendency to delay expectoration and aggravate the subsequent dyspnœa and to [illegible] that debility which is the great obstacle to the speedy and ultimate cure. In place of the dangerous treatment of blood letting the [illegible] relax the [illegible] and [illegible] the combined influence of [illegible] rants and narcotics. When the stomach is much loaded as when the paroxysm occurs soon after a full meal, we may commence by directing a [illegible]. R. Pulv. Ind. Ipecac. gr. v

Acet Scillæ ʒi

[illegible] cannot be sufficiently estimated, [illegible] should not be [illegible] paroxysm. It will however be sufficient in ordinary circumstances to keep it a nauseant effect by giving

R. Pulv. Ipecac. gr. iii

Acet distillat ʒ iii

every three or four hours. If there be suspicion of acidity in the stomach we should give chalk and Ipecac in small doses. On the thirds or fourth day when the tendency to secretion has increased, some anodyne may be added to the expectorant and this mixture may be aided by the gentle stimulus of an acid. Dr. Tree states that antispasmodics are useful only when the disease has existed long when the paroxysm recurs from habit and sympathy and when [illegible] impressions. [illegible] ether is a very excellent medicine as the paroxysm so frequently arises from a disordered state of the stomach and bowels. The employment of laxatives during the fit affords an obvious means of relief. In some cases the action of a purgative carries off the fit; but when purging is advisable it should be attempted by giving the bark castor oil and other medicines as mild in their action. [illegible]

recommends Chalk and the bark. The cold bath has been recommended as a powerful means of directly checking the asthmatic paroxysm. When the constitution is [illegible] it may be advisable to employ it occasionally, but not otherwise. During the [illegible] of the paroxysm attention should be principally paid to the [illegible] of all the exciting causes of the disease. Attempts are to be made also to give tone to the capillary vessels of the lungs and to promote the strength of the stomach and general system. To enter upon such a plan with any prospect of success a [illegible] ation on the part of the patient is indispensable — his health is in his own hands in a great measure. To aid the efforts of the asthmatic preparations of [illegible], bitters and the mineral acids may be advised. Dr [illegible] recommends a teaspoonfull of the carbonate of [illegible] three times a day in [illegible] Carb. Fer. gr xv x

Pulv. [illegible] gr

Oleum anthemis gtt 1

Ft Pills XX

Take three night and morning

The nitric acid treatment lately reccommended by Dr J. S. Hopkins of Georgia. Has proved in his hands to be one of the most potent remedies that have ever been revealed to the medical profession. He speaks of five cases in the Stethoscope, a Virginia Medical Gazette, as having been cured by its use. Three to five drops of nitric acid being given three times a day.

Diet and Regimen. Cold bathing daily and well regulated exercise and when [illegible] frequent change of air of [illegible] and amusement are of real importance. But above all things attention must be hard to the regulation of diet, light and [illegible] food as to be preferred and always taken and that [illegible] moderation. With these precautions many confirmed asthmatics may pass through life in comparative [illegible]

When the disease is inveterate the only
chance of permanent cure rests in a
complete change in all the habits of
life.

When we contemplate the almost innumerable diseases to which the human system is liable, and reflect upon the vast importance attached to each, we are at a loss which to select as the bases of the few remarks which we shall submit to the consideration of your Honourable Body. But being impressed with the important truth that every Physician or aspirant for medical honours should acquaint himself with those particular diseases which prevail in sections of country where he may chance to reside; and with which he should endeavour to obtain (as far as practicable) a thorough knowledge both in regard to their origin and medication. And in accordance with this fact we have selected as the bases of our Inaugural essay. Bilious remittent fever being ourselves are inhabitant of a malarious district.

Bilious remittent fever is a form of disease found in almost any part of the United States, but particularly in the middle and southern sections. It is seldom found in the mountainous districts of our country, in sandy regions covered with

pine forests, and in the middle of cities. The situation in which the disease is most prevalent is the border of lakes or ponds, and in the neighbourhood of marshes. We sometimes find it occurring in an epidemic form, in a very healthy, but remittent fever is not confined to this country. It is endemic almost every where in hot climates. This disease though mild in temperate latitudes, becomes extremely fatal in many places within the tropics. Its prevalence, as well as violence, is almost invariably in direct proportion to the heat of the season; while, in many of the more northern sections, where the disease is not one of ordinary occurrence during a summer of extreme heat, it will prevail, often to a considerable extent, and marked occasionally by symptoms of extreme violence: it being limited, however, almost exclusively to those situations noted in other seasons for their insalubrity, so in which the causes of disease are ready to be developed upon the occurrance of any unusual degree of atmospherical heat. This disease has received numerous names, it is undoubtedly remittent; it is also

bilious [it also are a great [illegible] other diseases] We shall therefore in treating of this disease call it simply remittent fever. Remittent and Intermittent fever are closely allied to each other, both are supposed to arise from the same cause, (vis Malaria) and in some cases approach each other so closely that it is difficult to designate one from the other. In intermittents there is often some degree of morbid action, and in remittents often very little between the paroxysms, In many cases, the paroxysms of remittents occur at regular intervals, like those of intermittents and like them consist of the cold, hot, and sweating stages, though less distinct and decided. In other cases, with the same regularity in the recurrence of the paroxysms, there is no cold stage after that of the accession of the disease, and the sweating stage is either slight or wanting, In others again, the fever merely fluctuates in its course; as one time rising into a moderate exacerbation or another falling into a moderate remission without well defined

paroxysms. Patients [illegible] the fever, pursues a uniform course to the crisis. Remittent fever has the same types as the intermittent. The [illegible] is the quotidian, with a paroxysm [illegible] at about the same hour every day. The tertian with its every other day paroxysm, is not [illegible]. The quartan is very rare. Next perhaps, to the quotidian is the double tertian having a daily paroxysm, but that of one day differing from that of the past. A remittent may always be considered of the double tertian type, when having an exacerbation every day, it is yet much worse on alternate days. The milder and more simple form of remittent fever is generally preceded, for some days, by listlessness, langour, a bitter taste in the mouth, nausea, a sense of fullness about the epigastrium, and generally more or less pain and heaviness over the eyes. The attack is usually ushered in by a slight chill or merely a sense of coldness, which is followed in a few

hours, by increased heat of the whole surface, the skin becoming dry, the face flushed, the eye red and suffused, the respiration hurried, the pulse quick and hurried; there is great prostration of strength, with restlessness and watchfulness. These symptoms continue about six or eight hours, after which they begin to cease, with the appearance of [illegible] about the face and neck. This gradually increases, until the whole body is covered with a gentle perspiration; At this stage of the disease we find the patient apparently much improved. The headache, thirst, and nausea have greatly abated, the pulse has become almost natural; the skin is cool and soft, the tongue often shows a disposition to clean; and food is sometimes received, in small quantities. This is the remission, although it is sometimes very slight, but, in almost all cases of remittent fever, occurs in a greater or less degree. It varies much in duration, in some cases lasting not more than two or three

hours, in others a whole day; being long or short according as the type of the fever may be quotidian or tertian. Another paroxysm of fever then takes place, sometimes, like the first, begining with a chill and subsiding with perspiration, but frequently also without either the one or the other. This terminates like the former, and then the alternation continues each succession exacerbation beginning and ground wale, more severe and protracted, and each remission less decided and shorter, until the disease attains its maximum of severity; when, though in many instances the remissions are still distinct, yet it often happens that they are quite otherwise, and that the only evidence of fluctuation in the course of the fever is, that the pulse beats a few strokes less frequently, the skin is somewhat cooler, and the sufferings of the patient somewhat less, in the morning than in evening. In this stage, the following symptoms are mentioned; the pulse is more frequent than at first, the rest

and dryness of the skin we find considerably augmented. The tongue is covered with a white or yellowish coating, which as the disease advances, often becomes brown or blackish, especially in the centre. Sometimes the patient is troubled with uneasy sensations in the back part of the tongue, or in the fauces, which cause an almost constant hawking, with the discharge of a glairy mucus. There is very frequently a feeling of weight or oppression in the regions of the stomach; the epigastric tenderness and pain are not in general experienced, in any considerable degree, before the third or fourth day, and are apt to increase with the disease. With these symptoms, there is very often an irritable, sometimes an excessively irritable state of the stomach. Nausea and vomiting are very frequent attendants upon remittent fever. The matter vomited is of a bitter taste, and of a yellowish green or bright green colour. There are usually considerable thirst, a costive state of the bowels, the urine is scanty and higher

coloured; and, after the disease has continued for some days, the skin acquires a yellow tinge, which sometimes extends to the eyes. The exacerbations lasts from eight to twelve hours, when a gradual abatement of all the prominent symptoms take place, and often a slight moisture breaks out upon the surface, and the patient falls into a refreshing sleep, in some cases the skin continues dry after the heat has declined, and the patient during the remission continues restless and disinclined to sleep. The duration of the remission varies with the violence of the attack gradually; however, the heat of the surface increases, and an exacerbation of the fever follows marked by the same degree of intensity as the former, or even by increased violence. All the foregoing symptoms appear in an aggravated degree, with long continued exacerbations and less distinct remissions in the severe forms of the disease. There generally takes place in the milder and uncomplicated form of the disease a distinct exacerbation, followed by an

evident remissions are in every twenty four hours, but in the more violent and decidedly inflammatory forms, the remissions are so short and slight as almost to pass unnoticed, hence the difficulty in diagnosing between these cases of remittent fever, and continued fever, the duration of the disease varies according to the violence or mildness of the attack, it may terminate in a few days or even on for several weeks, but it usually terminates in from nine to fifteen days. Though in some instances we have cases of remittent fever of very protracted duration here the well marked lines which separate the period of accumulation and remission are almost effaced, these cases are sometimes protracted for years. The anatomical characters generally affected in this disease are the liver and stomach, it is true we sometimes find the symptoms during life, and the lesions after death indicating more or less affection of the lungs or brain; but this may be regarded as a complication, and not essential to the disease, we generally always find a morbid condition of the liver in remittent fever.

while in this we find symptoms of gastric disease;
in remittent fever the indications of febrile disease predominate; in annual fevers, both are sufficiently well marked in the same case. The prognosis of remittent fever will depend in a great measure upon the character which the disease bears, in the milder forms of the disease, with distinct exacerbations and remissions and no general tendency to disease of the more important organs, particularly when they occur in persons of temperate habits, and of constitutions unbroken by previous disease, [illegible] favourable result, provided a judicious treatment [illegible] the [illegible] The [illegible] the cases in which the prognosis is much more unfavourable are, in proportion as [illegible] the mortality is truly appalling. The favourable conditions in individual cases, are the mildness and regularity observed in the exacerbations of the disease, a distinct [illegible]

[illegible] particularly when this is accompanied by a few [illegible] and the patient falls into a quiet and refreshing sleep; the postponement of the [illegible] [illegible] [illegible] their anticipated periods; the occurrence of more regular and healthy discharges from the bowels; the tongue becoming cleaner and the pulse slower and less frequent, &c. In the treatment of remittent fever we must differ from many medical men (that is, so far as general blood letting is concerned. We deprecate general blood letting in all cases of remittent fever except those of a decidedly inflamatory character; marked in the early stage by a high degree of arterial excitement. In such cases we should institute topical bloodletting, and should this fail to meet the indications, we should then as a last resort institute general bloodletting, but under no other circumstances should we use Phlebotomy in the treatment of remittent fever. We do not regard all cathartics as being beneficial in this disease, but should use as our principle cathartic, in

the treatment of this disease, calomel is full do-
ses, followed by occasional doses of castor oil, ca-
lcined magnesia, or laxative enemata; or the
calomel may be combined with rhubarb or jal-
ap, and followed every three or four hours, according
to the effects produced, by moderate doses of the blue
mass, and rhubarb, with the addition of small
portions of ipecacuanha; after which an occa-
sional dose of the milder laxatives will alone be
required. In those cases of remittent fever atten-
ded with a hot and dry skin, the application of
cold water to the surface, is found to have a ben-
eficial influence; both in promoting perspiration,
shortening the exacerbations and inducing a com-
plete intermission; over the exposing of the body
to a current of cool air, will in most cases be pro-
ductive of the most beneficial effects. The appli-
cation of cold water to the surface is proper only when
the temperature of the body is permanently increas-
ed over the whole body, and at the same time the
surface is perfectly dry, when the skin is cool or
covered with moisture, the use of the cold water is

inadmissible; it is also of doubtful propriety when there exists a decided tendancy to hyperaemia or inflamation of the lungs, or in cases attended with diarrhoea. Cold drinks also in connection with cold applications are often beneficial; the patient should be allowed to drink freely of cold, or even iced water or iced lemmonade, which has a tendency to diminish the morbid excitement, relax the skin and promote a free diaphoresis. Blisters are sometimes thought to be beneficial in this disease, particularly in those cases when the exacerbations have become less intense, and the remissions more marked, in all cases where considerable gastric distress remains, or any considerable affection of the head or lungs, from blisters over the epigastrium and right hypochondrium to the nape of the neck, along the spine, or to the chest, may considerable relief will always be obtained. Sulphate of quinia is also an important remedy, in the treatment of this disease. The general mode of administration is, I believe, to give from twelve to eighteen grains during the remission, if this

fails to prevent the [illegible] [illegible] [illegible] [illegible]
ty which generally prevents its return. The dose is [illegible]
two to three grains, some prefer combining quinia
and serpentaria in equal proportions, which
treatment is highly recommended by some pra-
ctitioners. We regard the sulphate of quinia as our
[illegible] [illegible] in the treatment of remittent fever,
and in all cases not exhibiting marked signs
of cerebral or gastric inflamation, should adm-
inister it as our first remedy without waiting for
a decided remission; and after the paroxysms
had ceased correct the secretions by giving
small doses of calomel and ipecacuanha or
blue mass and ipecacuanha in alterative doses.
In mild cases with marked remissions we should fo-
llow the general mode of [illegible] [illegible] [illegible] [illegible] calo-
mel and rheubarb at night followed by quinia in
the remission. But how often do we find in cas-
es of remittent fever, the remission [illegible] slight that
we can [illegible] [illegible] [illegible] [illegible] in the
symptoms save by the pulse, in such cases we
nearly always find the [illegible] [illegible] [illegible]

great [illegible] [illegible] [illegible] [illegible]
[illegible] In such cases we should endeavor to
bring the system under the influence of quinia as
[illegible] [illegible] before the [illegible] of the next
paroxysm, from twenty to twenty five grains of
quinia is generally sufficient, the dose must be regu
lated according to the duration of the remission;
the whole should be administered two or three hours
before the paroxysm. Nor should we be content
with preventing a single paroxysm, but continue
the quinia until two daily paroxysms have
been prevented; after which the patient may be
considered out of danger. The administration of the
quinia should be commenced as soon as the symp
toms begin to subside, this may be known by
the skin becoming [illegible], the vomiting ceasing and
the pulse becoming less frequent, care should be taken
that from twenty to twenty five grains of the quin
ia be given before the return of the paroxysm,
should this treatment prevent the return of the par
oxysm we should regard the case as being desperate.
We often find considerable irritability of the stomach in

[illegible]

holding small portions of ice in the mouth, iced lemmonade or toast water will sometimes effect relief, sometimes minute doses of calomel, suspended in some simple mucilage, and repeated at short intervals, will relieve the gastric irritability and suspend the vomiting; sometimes small [illegible] [illegible].

Sometimes this disease, after the violence of the [illegible] has been reduced, the patient will continue to be affected by a low form of fever, marked by a dry skin, a small pulse, [illegible] the bowels, and a total want of appetite, this state of things is sometimes speedily removed by a cautious mercurial course, carried to the extent of producing a slight tenderness of the gums, in these cases small doses of calomel, or what is preferable the blue mass combined with a portion of opium and ipecacuanha may be given every three hours until the desired effect is produced, throughout the [illegible] should not be [illegible] by the patient, nor should [illegible] the stomach until [illegible]

[illegible] rice water, thin gruel or panada, in very moderate quantities,

An

Inaugural Dissertation

On the

Anatomical Structure of the Uterus

and

Ovarian Albus

Submitted to the Examination

of the

Provost Regents and Faculty of Physic

of the

University of Maryland

for the

Degree of Doctor of Medicine

By

Francis Asbury Bland

of Bedford

Virginia

February 14th A.D. 1834

When we approach near the end of our theoretic course of Medicine (though as yet but very small lights shining forth for the relief of the afflicted; compared to the most luminous, teachers of the healing art some who have long since passed away and other great and good teachers: who are yet living to adorn and serve as ornaments of our noble profession; and from my own acquaintance with the schools of Medicine I believe that our school is possessed of some of the best Teachers) it is made obligatory upon every candidate for graduation to write a treatise of a theoretical or practical nature upon some medical subject or disease of his own composition: in how many instances this rule is complied with I am not prepared to say I can only say as to my own part I can only say

that I do not expect to write anything that has not been written. and all the Ideas that I may advance have been taught me by my text books or by my inestimable Professors. when I say all of the Ideas I mean the facts that I may assert, in discussing the Disease which I have Chosen,

Leucorrhoea

Leucorrhoea is a disease familiarly known by the laity as whites. from the Circumstance of its being accompanied by a white glairy discharge

It seems that this disease has been recognized ever since the Days of Hippocrates and has been the subject of a great many writers. this disease is generally Considered by the Student a very trivial and simple disease and therefore does not receive as a general rule it does not receive a moments

reflection from him: until he gets into the practice of his profession and is called upon to treat a case; then we may not assured that it is almost always treated ignorantly.
I may here be allowed to remark that I believe for the sake of the preservation of the profession and future prosperity of the practising Physician it is of more importance that he should understand the nature course and treatment of these so called simple diseases. Than any other: for it is always expected that the Doctor can cure these simple diseases immediately. And that the more complicated and more fatal diseases are not expected to be unmasked so soon, and therefore in the ordinary practice of medicine it is of more importance to be acquainted with ordinary diseases. The principal seat of Leucorrhoea is

in the Vagina and neck of the Uterus = the seat of the disease will with our knowledge of the parts will lead us to suspect the nature of the affection — Considering the delicate and sensitive ness of the organ or organs affected it is well known that the Urinary Genital organs are possessed of great nervous sensation = being supplied very abundantly with nerves which are derived from the Ovarian Hypogastric and Sympathetic plexuses; However this has nothing to do with the subject but I think it will not be amiss to go a little farther with the anatomical structure of this organ. The Uterus is also possessed of great muscular Contractility consisting of fibres running in an oblique transverse and longitudinal direction thereby being subjected to a great abundance of Compression when necessity requires that it shall be

There are remaining two Coats of the Uterus to be described next to the Muscular being the mucous but it is denied by some Physiologist that is not mucous but we know that it is from the fact that all membranes Communicating with the external air is mucous: this membrane is Continuous lining the Fallopian tubes and also the Vagina the external Coat is the reflection of Peritoneum which serves the organ in its varied Conditions and as a general lubrication But to return to our subject Leucorrhoea affects the internal or mucous Coat the Definition which I think most applicable to the disease is that it is a more or less increased of a white yellowish or greenish mucous resulting from inflamation either acute or Chronic or from irritation of the lining membrane of the genital organs Female,
The seat of the discharge may be known by

by examining its character and appear
and; If it be of a jelly like appearan
ce appearing resembling coagulated Albu
men and taking place at periods and
in small quantities it is then likely
that it comes from the follicles of
the neck of the Uterus - follicles are little
sacks pussing down into the tissue of the
part: for the purpose of Physiological se
cretion. on the Contrary if it be
of a whey like or creamy consistent varyi
ng in color from white to green the
supposition is that it comes from the
mucous lining of the Vagina. in such
cases the Vagina is generally found stu
dded over with red points said points
being the inflamed orifices of mucous elevatio
ns,

Leucorrhoea attacks Females of all the
different walks of life the high as well
as the low the rich as well as the poor

and of almost all ages indiscriminat
ely: however the disease is more common
among those Females of intemperate habits
who indulge in excessive Venery and filth
iness: it is one of the most frequent disea
ses during the Years of Menstruation
Causes = This disease is caused by cold ex
posure to dampness excessive Coction irritabil
ity; from Pessaries irritable food and al
so from displacements
Symptoms: This disease is often Character
ized by pain about the region of the loin
s and a sense of heaviness dullness and Stupi
dity in that region and also a dull sensa
tion with pain in the Abdomen and thighs
Complaining very much upon moving and
when pressure is made in some Cases the
patient receives great nervous sensation
the digestive functions are generally disordered
so much so that the health of the patient suf
fers extremely; Sometimes the Sympathy is so

great as to throw patient in a hysterical
Condition; Sometimes there is Considerable
pain in the bowels with tympanites - the pa
tient almost always presents a dull greedy appe
arance she is inclined to be Complaining
and as they are generally ignorant of the nat
ure of the disease as well as delicacy and
timidity will suffer it to be prolonged until
it finally terminates into a Chronic Sore
throat:
Now now when we have it all summed up to
gether we will find that the principal origin of
the disease is irritation either direct or indirect
Authors make various Classifications
of this disease - Some one number and some
another. Thus we have one Class denominat
ed Syphilitic and yet this Class is prod
uced by the indirect irritation of the Syphilitic
Virus. But the Classification that I prefer
is Concentric of direct irritation of remote or
indirect irritation and Concentric habit;

1st We consider that class of the disease which is produced by direct irritation: as all discharges following active inflammation of the Mucous membrane of the Uterus and Vagina produced by some local cause as severe parturition application of instruments excess of Venery foreign bodies introduced into the Vagina and neck of the Uterus such as Pessaries; also displacements such as prolapsus uteri or from simple inflammation of the part such as all or every part of the body is liable too without our being able to say why this or that part may have been selected

2nd from indirect irritation or from that form taking place from sympathy of the Vagina with the Uterus during pregnancy or when the Catamenial flow has been long obstructed thereby producing Chlorosis, and Dr Duvers speaks of a kind produced from irritation of the rectum when subject to Hemmorrhoids or when irritated by worms, with the Gums as in early dentition and with the Stomach when dispeptic all of these exciting sympathy of the

Female genital organs thereby producing Leucorrhoea

3rd under this head or that class produced by habit Thus the mucous membrane of the uterus and vagina may be irritated by inflammation by mechanical agencies by poisons or perhaps by a sympathetic influence so as to produce the disease and afterwards although the exciting cause be removed yet the surface which had for so long a time produced the unhealthy discharge will from habit persevere in its production,

Just as it is when a person has been salivated from the use of Mercury. There is a continued flow of the saliva and spitting for a long time in so ~~me~~ cases after the agent has been withdrawn so also after an attack of Dysentery sometimes there is a continued discharge of a watery mucous appearance; hence of all of these we suppose to have a constitutional tendency or at any rate as being habitual, therefore Leucorrhoea of long standing is more difficult of cure as it is then in its chronic form but this last class of the disease it may be said very

rarely occurs; and it is thought by Dr Lowe to be more common after an attack of Sonorhoea than after any other Cause = this I consider and indirect Cause inviting direct agencies)

I think that it is admitted by all the their theories what they may of menstruation that there is more Blood invited to the uterus and its dependencies about the commencement of the Catamenial flow and immediately after than ordinarily; excepting when the uterus is in a state of gravidity then we take it that this increase of Blood is intended to furnish the catamenial or menstrual fluid; and that this process is effected by an irritable or increased action of the Blood vessels of the uterus, and hence when the vessels are irritated they are urged to an elimination of more fluid than ordinarily; therefore we have and increased discharge and a continuation of this active irritation will give us to some extent the abnormal discharge called Fluor Albus)

And again we have this unnatural discharge during pregnancy when it is impossible for it to come from the vessels furnishing the menses, then it must come

from the Vagina its lifeds also being in an abnormal State or State of engorgement
It must be remembered that Leucorrhoea is more common before the Cessation of the Menses than after Unless there is some organic lesion of either the Uterus or Vagina,
The effects of this disease can in most cases be ascertained pretty accurately by the amount of the discharge and by making ourselves acquainted with the part from which the abnormal discharge is eliminated, as we believe its bad effects upon the system or upon the Constitution are to be feared more when the uterus is the seat of the discharge than otherwise, But when the disease is accompanied by Hemorrhoids or prolapsus Uteri or anything that assist in exciting Sympathy; its effects upon the system are then increased, but a portion of this excited sympathy must be alledged to the accompanying disease or diseases and it is then a natural consequence to suppose that both diseases combined

have a stronger tendency to deteriorate the eye
than either one a single form
It is generally supposed by writers that when the
discharge comes from the uterus and there
being no discharge during the night but a very
abundant one upon rising in the morning of a gel
airy tenacious substance and that during the
day that it occurs suddenly and accompan
ied with effort and pain, and that when a
piece of sponge is introduced and let remai
n for a time that it is to be filled with the kind
of matter mild flow immediately upon the with
drawal of the sponge all of these circumst
ances proving that the discharge comes from the
uterus = and after satisfactory proof of this
fact it will almost always be found that such
cases are incurable and that all of these women
are found to be barren hence I say the great
necessity of paying particular attention to these
diseases of the genito urinary organs rendering
ourselves thoroughly acquainted with them in

order that we may be enabled to afford relief as early as possible to the down cast and dejected spirits of the delicate female.
This disease may be divided into three different stages; the 1st or simple form of the disease is characterized by the matter discharged being glairy and trasparent resembling thin starch very often accumulating within the vagina and is suddenly discharged by sudden emotions such as by stooping or by lifting heavy weights &c. then the matter is discharged in a great quantity this form of the disease is slight and very mild and is generally local and so mild as to exert but very little influence upon the health of the patient; but this influence differs with different individuals, the influence being produced according to the excitability or the sympathy which is produced by local irritation
In the 2nd stage the discharge is of a white yellowish or purulent appearance it is more abundant in this stage than in the first, this stage dif

-fers from the preceding by having the Vagina with regular Uniformity and requires very particular attention to the parts if not they become very offensive and soon produce ulceration. This Stage is generally accompanied by pains in the regions of the loins hips pubes & and if the discharge be excessive the nervous System is brought into sympathy and when the nervous symptoms and prostration set in they are both troublesome to the patient and very difficult of management by the Physician

3.tio The third Stage is accompanied by an aggravation of all the symptoms of the first, the discharge is of a greenish Colour and has blood mixed with it; it is prosper however to Consider the two last Stages as both being aggravations of the first that is the inflammation is greater in these mucous coats than in the last therefore we have more to Contend there in the second in the second more than in the first

We have next to Consider the treatment.

The treatment of Leucorrhoea is pretty much the same in all of its stages. more than we have to persevere & observe more strictness as regards diet guarding against exposure and avoiding all excitement both mental and physical,

The treatment should be commenced by directing the parts to be regularly washed five or six times pr days or as often as there is an accumulation of filthiness

A strict antiphlogistic plan of treatment plan is generally requisite for the cure of this disease if our patient be not too weak we then administer a purgative thereby depleting the arterial system, if she is plethoric we then resort to blood dletting and at the same time having an eye to her diet which should be very mild consisting of milk and vegetable food. and now when the pulse has been brought down to its proper consistency or when it is in its proper condition without the above agencies, the principal reliances is then placed upon cans the

arides, and astringent injections, the tincture of Cantharides is generally given in doses of from ten to thirty three times pr day until it produces Strangury and if Strangury be not produced soon the dose should be increased, should the Complaint withstand the first Strangury we Commend the agent again and Continue until its effects are produced the second time, it rarely however withstands a second irritation of the Bladder

The above agent acts by its stimulating and diuretic properties upon the Genito Urinary organs as soon as a change is observed in the discharge, it is then propper to employ astringent injections = but always bearing in mind that it is important to have the parts well washed with soap and water before employing the injections = and for the injection Sulphate of zinc is very applicable making a solution of from v to vi gr to the oz of water or the sulphate of Copper in from xx to xxv gr. to viii ℥ of water

so also may the acetate of Lead be employed with benefit in a strong solution either of the above named agents may be employed either three or four times pr day in injection always bearing in mind the precautions hereto fore given = that is removing the collected matter that may be adhering by warm injections so that our remedies may have free access to the part furnishing the discharge

The treatment of the second stage is very similar to that of the first = we should be very rigorous as regards cleanliness being particular in the recommendation of the diet which should consist of milk and vegetable principal such as Tapioca Sago arrowroot and other varieties such as we have at hand: it is very requisite that we should secure a brisk cathartic operation. and if the pulse is about its natural standard it would be proper to commence with the tincture of Cantharides = and if the pulse is not in a proper

or Condition then bloodletting - must be emp
loyed until the Condition for administering the
Cantharides is obtained and bearing in mind
that this agent is subject to the same restriction
as before; the mineral injections may also
employed in this stage using the acetate of
Lead more generally on account of its more se
dative action as we have more nervous irrita
tion and excitement in this stage than in the
former,
In the 3rd and last stage that we make of this
disease is of a more aggravated form and
as the system is generally implicated to a
great extent it is necessary to Bleed give
purgative Medicines keeping the bowels in a
relaxed Condition and Tolerable fire and also
observing the milk and vegetable diet
this stage requires the use of the Cantharides
and the injections formerly employed some
writers also recommend the nitrate of silver in
this stage employed as the other astringents &c.

for its astringent and sedative effects. being employed by saturating a piece of sponge and introducing it into the vagina or by a syringe guarding the patient from being stained by the agent either her person or clothing. It will therefore be seen that the principal remedies and resolutions are low diet rest bloodletting purgatives cathartics stimulating diuretics astringents and sedatives as occasion the patient may be known to be improving by the abating of pain the discharge being thinner and more transparent and by diminution of quantity and acrid

A Clinical Report of Six Cases.

Submitted to the Examination of the Provost, Regents, and Faculty of Physic of the University of Maryland.

For the Degree of Doctor of Medicine by

James B. Amos of Maryland.

A Case of Typhoid Fever,
treated by Dr. Rittenberger.
George Hamerbacher, admitted
October 4th 1859: native of Germany;
ten months in the U. S. ten
days ago, he had a slight chill
followed by the usual symp-
toms of fever; and has continued to
get worse up to the time of
his admission: when he entered
he had the following symp-
toms: complains of great weak
ness: pains in the back and his
limbs: not much enbsultus
tendinum; has some headache: some tinnitus aurium: skin
somewhat heated: pulse 104 and
compressible: tongue slightly
coated with a thin whitish
fur: loss of appetite: some
thirst: had slight epistaxis to
day: Eyes are slightly injected:

bowels loose moved four of five times during the day: the mind wandering during the night: cheeks considerably suffused: abdomen somewhat tympanitic: tenderness on pressure in the R. iliac fossa: slight cough and bronchial rals to be heard in the superior part of each lung: more clearly marked on the left side: some rose spots: no sudamina as yet:

Ordered ℞ Tum. Sulph. ℥ij
Sulp. Acid. arom ℥ij
Aquae ℥iij = 6 ft
tablespoonful every 3 hours:
Also a warm mustard poultice to be applied to the chest and renewed during the day:
October 5. pulse yesterday evening 96: skin moist and warm: says he feels better: face not so

as much flushed; bronchial irritation somewhat diminished: con. Trea.

Octo 6 continues to improve: pulse yester at 7 o'clock P.M. 84 skin natural: tongue cleaning: no tenderness or pressure in the right iliac fossa: face slightly flushed; bowels moved 4 times the last 24 hours. Con. treatment.

Oct. 7 convalescing: pulse as yesterday: free from fever: skin natural: tongue moist and not much coated: 3 stools during the last twenty four hours con tin the Quinine every 4 hours (that is 10 grains) October 8 improving pulse 82: bowels moved 2 since yesterday: skin as yesterday: tongue moist & cleaning: bronchial irritation gon:
cot. quinine every 4 hours
Oct 9 condition much the same

Oct. 12. He has continued to improve slowly: ordered to stop the Quinine and to give infusion of serpentaria 3 ss. every two hours

October 16 convalesced.

October 19 discharged this morning well.

A Case of Scarlet fever.
Treated By Prof. Thomas,
Christoph: resident of Baltimore:
Aet. 17 admitted May 20th 1853: sick six
days is a fraily made boy of sedentary
habits: cosiderably emaciated: has
had febrile prodromic symptoms:
considerable debility: to day has skin
of pungently heated temperature
and dry; with high scarlet eruption;
continuos upon right shoulder and
side of scrotum: face of a less in-
tense tint: maculated duskey
eruption upon the rist of
the body and extremeties some
herpetoid papular near the rists:
tongue slowly protruded beef-
slake tongue: head tendency
to stupor: dulness of intellect:
no headache: no catarahl or pul-
monary disease: pulse 128 and weak:
hoarse voice: pauses present con-

sederable inflamation ordered to be
touched with solution of Nitrate
of silver gr. x to Aquae ℥i: abdominal
walls flacid: had three stools
to day: has taken purgative medi-
-cine ordered ℞ Potass. Citra. ʒii
Spir. Nit. Dul. ℥ß
Aquae ℥ij.
S. tablespoonful every three hours
And to have alum gargle.
May 21, delerium during past nigh
and this morning: redness lep
flored: pulse 118 yesterday even-
ing 128 weak: skin warm:
ordered a musk poltice to the neck:
May 22, got ol. Ricini ℥i ℥ß yesterday dele-
rium continuous of the vigalent
kind: free catharsis: skin cool: tou-
gue moist: some flakes of lymph
upon the fauces: voice not so hoarse
pulse 88 and weak: Stop Neutral
draught ordered ~~vinum~~ Iuin sulp gr

ip every two hours and wine.
May 23 Slept well last night:
this afternoon he is rational;
blush upon the face trunk and
scrotum lips; no emption upon the
hands or arms: skin not so pun-
gently hot: tongue still glased
but moist; lips dysphagia: lips
thirst; pulse 96 and stronger:
hypercatharsis from only 3i of ol.
Ricini: complains of acute pain abo-
ut the middle of the sternum
May 24. no delirium: slept well:
during the night pulse 72 and
soft expectorates freely eruption
faiding.
May 25 no delirium. slept well
pulse 70 and full: tongue dry
and glased: increased soreness of
lips rash gon: exception of face
which is unchanged: conjunc-
tivae resuming natural appear-

ances respiration regular
continued wine and Brarke
much thirst: stop Quinine give
by Agent. Nit. gr. iv

Aque. Dis. ℥i ~~℥ii~~

S. xx drops every 3 hours in ℥ii. of water
light die

May 26, thirst less: slept well
desquamation from scrotum:
urin scanty and high colour
-ed, not albuminous under he-
-at or nitric acid

May 27, convalescing 2 stools: skin
and tongue paler; sleps well:
less thirst: trunks desquamating
Take Argent ter die

May 28, convalescing has phlegmon
ove right trocanter magor- ord.
poultice to it

May 30, convalesced discontinue treat-
ment tongue and pulse natural
June 4 discharged well

A case of Dysentery Treated
By Prof Miltenberger.
R. Wood admitted: July 10th 1853:
aged 18 native of Pary land: sailor:
previous health and habits
good: sick two days: had no treat-
ment previous to his admission
When admitted he had the
following symptoms: tongue
coated in the middle with a
white fur and red along
the edges and tip: pulse 80 and
compreable: griping pains
in the abdomen and tenesmus:
irregular in the periods of
recurance and attended with
discharges without the ability
to evacuate any thing more
than a little bloody mucus:
tenderness on pressures over
epigastrium: he was ordered
Map Hyd gr. V. Tr Opii Tr Ipecac. ;

ā ā gr ½ one pil every 2 hours: also
3 cups over Epig. region & sura-
pism ove the place caped.
July 16, condition not much
improved: pulse 76: tongue
coated as above stated: skin hot
over Epig. N.; continues to have
discharges very frequently with
much tenesmus: the evacuations
are composed of blood & mucus:
Or. to continue pills and to have
3 cups over Epig. N.
July 17, he has had had about
15 stools during the last 24 hours
with more blood and less mucus:
skin hot: pulse 88 and weak:
less tonnina and tenderness:
bears deep presure: tongue
indented and clamy he is pty-
alysed stop mercury and sub.

N. Plum. Acetatis gr. xvj
Fr. C. Mi: — — gr ij

M.d. & ft. Pilulae No. 4 iij S. one every 3 hour
July 18 stools continue very frequent: pulse 88 and weak skin cold: tongue coated in the middle and red along the edges: great deal of tenderness ov. to con. the lead & opium
Also an injection of Zinc sulph gr x 4 j: Tin. Opii gtts 40 Anylum ℥ iv S. to be given at 2 injections
July 19 condition improved: pulse 86 & strong: skin warm & moist: less tenesmus: stools continues frequent but more natural: tongue cleaning: continue pills and injection
Also an infusion of Black-berry root
July 20, improving: 3 or 4 stools to day and becoming more natural: skin warm and moist: pulse 86 tongue coated along the middle

continue treatment
July 21. not so well to day:
pulse 96 and very weak: skin
cold: tongue coated: stools very
frequent:

℞ Arg. Nit. gr. viij
Pr. Opii. gr. ij
Ext. Gem. gr. xii

M. U. & ft pill No. viij. Some every
4 hours: continue infusion
of Blackberry roots
July 22 something better: 4 or 5 stools
but more natural pulse 84 every
weak: skin warm or to rev.
the injection: continue silver
stop Blackberry root and substi-
tute an infusion of Mat. co ℥ij
ter die. Also mint sling.
July 23 condition much the same
4 or 5 bowels: skin cold: pulse 92
and very weak: tongue slowly
protruded and heavily coated

July 24 2 stools to day: tongue coated: skin cold: pulse 88 very weak; ordered to continue, and to have Beet tea; 10 or 15 drops of Brandy every hours: also an injection of the infusion Matic Also pills

July 25 no better ordered to have Argent Oxid gr j

Pr Opii gr j

Ext Gen gr ¼

S. one ter die and to contin. In Matico as long ordered

July 26 condition much the same continue treatment

July 27 very much wore: return of hemorrhage per anum skin cold: pulse 100 and very weak: Stools involuntary:

July 28 condition as yesterday

July 29 all I have to say about Mr. R. Wood this morning is that he

died between four and five
this last night.

Autopsy venous congestion and
inflamation redness throughout
peritoneal coat of ileum and colon;
transverse colon in its 3 coat almost
natural: at ileum its mucous coat
was reddened in strips transversely:
the solitary glands being engorged
cecum was covered and the small
intestins with dark blood: this
being wash off disclosed redness;
softening softening and scattered
ulceration of the healthy mucous mem-
brane. these phenoena increased
along the ascending colon transverse colon almost healthy:
descending colon sig moid
flexure and rectum presenting
all the results of in. inflamation
which had gon on to ulceration
throughout the M. membr. down to the
muscular coat mesenteric glands enlarged

A Case of Dysentery Treated
By Prof Pillenberger
William Jacobs, admitted July 12:
sick one day: aet 21: German Baker; yes
terday he had 7 or 8 mucous and
bloody stools with much tenes-
mus and tormina: pulse 84 and
strong: tongue coated with a
white fur in the middle and
red along the tip and edges:
no tenderness or pressure: skin warm:
Ordered Mass. Hyd. gr 2
Pa Ipec.
Po. Opii. āā gr ¼. S. one in 2 hours
July 13 slept well last night; not
stool until sunrise this mom-
-ing with less tenesmus; pulse 79:
tongue more natural; has reten-
tion of urin for 36 hours ordered
to continue rem: apply hop fom-
entation to belly at 9 O C lock
P. M. patient was a sleeping

in a profus warm perspiration
urin was drawn off by catheter.
July 14. four mucous and bloody
stools in the last twenty four
hours: tongue less red along the
tip and edges: still white on
dorsum pulse 78; belly hot, and
painful at Sigmoid flexture
ordered to stop pills and to sub.

℞ Mag. sulph. ℥j
Antim et Potassea Tart. ℈j
Aquae ℥iv

S. tablespoonful every three hours
July 15. free perspiration: pulse 77:
pains at hypogastric region: on
pressure over R. Iliac fossee evinces
disconfort; tongue clean: had two
stools during the night and five
since sunrise with as much strain-
ing as formaly but with less blood
ordered to continue rem. Also
three cups ceacum:

July 17. skin cool: pulse 77: stools
less frequent: con. rem.
July 18. no stool: slight tenesmus
give Enemetae ℞ Zinci Sulph gr. 16
Tinc. Opii gtts 40
Stars. water ℥iv
1 ft.
S. to be given at two injections
at intervals of six hours: con. rem.
July 19 at bed time had griping
tenesmus and insomnia: or Pul. Dover
gr. xij Pulv. Opii gr. ij M & ft cht. at once.
July 20 at 1 P.M. was narcotised (that is
yesterday): at 4 P.M. to day woke and
continued as usual: pulse 76: tongue
clean; ordered lead mixture and
Zinc Enema:
July 23 had sup for dinner, yester
day: has uneasiness after meals:
much thirst: skin cool; tongue
natural: two stools without
straining: ordered sinapism to
epigastrium also 4 Tin Opii after

rack stools

July 25 poorly convalescent discontinue

July 29 for two days has had cough; also gastric discomfort ordered to make daily restriction of diet.

Give tinc Aconitum gtts XL every 4 hours

Also Magnesia gr XX

℞ Bismuth gr X

M et ft Chart No 1 S to be given at once

August 2 Discharged this morning well

A case of Dysentery treated
By Prof. Miltenberger.

B. Flanegan. admitted Sep. 13:
aet. 20: sick 6 days: she was atten-
-de by a physician before coming
in: who gave he dysentery powder,
(as she called them) when admitted.
she had the following symptoms:
griping pains in the abdoman:
frequent bloody stools. with m-
uch tenesmus: pulse 108 and
natural as to forse: skin warm:
tongue moist and covered with
a white fur. with the exception
of the edges and tip. which are
red: tenderness on preasure over
colon and sigmoid flexure
ordered. ℞ Ext. Opii gr ij
Sad. Sulph. ℥ii
Aquae ℥iv ℔
S tablespoonful every 4 hours
also cups over seat of tenderness

Sep 14 condition, much the same.
ordered ℞ Dja. Chlo. Mites. gr. viij
Pv. Opii gr ij
to be followed by ol. Ricei 4
hours after: also two cups
over each ileac region.
Sep 15 pulse 108: not so much heat
of skin: not so much ten-
-derness on pressure: very fre-
quent and bloody stools:
much tenesmus: ordered blister
over abdomen 4 by 6 continue Ext
Opii and soder sulph.
Sep 16 stools continue frequent:
slept more last night: tongue
heavily fured: bears pressure
better: pulse 100: the stools contain
some feculant matter, ord.
℞ Mag. Dja. ʒ ß
Pv. Opii gr ii
Cv. Ipec. gr ij
M. d. et ft pills No 8 s. one 3 hours

also an anodine Enema if straining continues

Sep 17 three stools: less pain: pulse 96: slep well last night: give pillies every 4 hours: give lead and opium if required.

Sep 18 skin moist: tongue cleaning and moist: pulse 92: take one pills this morning and one at night.

Sep 20. three stools since yesterday: lying on left side: gums slightly spongy yesterday: tongue moist with a yellowish fur: slight rectal and sigmoidal tenderness: got yesterday pills composed of

Plum. Acetatis gr xvj
Pulv Opii gr ij

M. ch. ef. ft. Pills No 8 s. 1 every 3 hours: ordered to continue the pills to also enemate of Zin. Sulph gr xvj
of
Tinc Opii gtts 40
Aquae amylu. ℥jv

[illegible] injections [illegible] dia

Sep 21. facial expression very easy &
natural: skin moist and natural:
three stools without much straining
contin. pills every 3 hours and
Inj. ter die:
Sep 22. 2 stools this morning and
3 last night: slept last night
very well:
Sep 24. She has continued to improve
stools less frequent and becoming
more natural ord. to con. trea.
Sep 26, 2 fecal dejections: not tenesmus
slept well: stop injections: give pills ter die
Sep 26 convalescent: 1 stool during
the last 24 hours discon. treatment
Sep 29 has continued to do well
bowels regular
October 2nd discharged this morning
well.

A Case Rheumatism
Treated By Prof. Thomas. Mag 30
Patrick Larlus. native of Ireland:
Has been in this country one month:
ten years ago had an attack sim-
elar to the present one: has been
employed in packing ice carts
before daylight; five days ago
had a chill followed fever &
pain in the limbs. took previ-
ous to his coming in a dose of
Mag. Sulph. which operated
freely: when he entered he had
the following symptoms: pain
in all of his joints: also pain in
the region of the heart which
he did not feel until last
night: pulse 90: respyration nat-
-ural: impulse of heart less than
natural. he was odered the foll.
ing treatment ℞ Mag. Car. ʒp
Mag. Sulp. ʒi

Tinc. Colch. ℥iij

Aquae ℥v½

dose tablespoonful every 4 hours

also ℞ Pv. Ipec. et Opii. gr x

Mit. Chl. Hd. gr v

Lost 12 ℥s of blood, which reduced the frequency of pulse.

pay 31 condition about the same: pulse 79: respyration 28: hearts sounds about the same: ordered to have the mixture every 2 hours also 8 cups along the spine from the shoulders down.

June 1 pulse full and strong: was fully purged: hearts sounds more distant: no precardial dull nip: & this morning a rubing sound was heard between 4 and 5 ribs below lift nipple: pain in percussion along the course of aorta: skin pungently hot, and dry

June 2 Condition not improved:
Lear no sleep last night: pulse
full and prong: bellows murmur
-mr was distinctly heard this
morning: ordered to continue treat
ment: also 3 cups over the re-
gion of the heart.
June 3. condition much the same
pulse as yesterday: slept none
last night: bowels continue loose:
skin hot: bellows murmur about
the same: ord. to con. treat.
June 4. pulse 80 and full: caught
rest more easily but does not
pain except when he moves it:
pain not so severe in the other
joints sounds of the heart distant:
bellows murmur not so distinctly
marked ordered to con. treat.
also 3 cups between scapula &
1 over the region of the heart
June 5 cond. not improved: slept

more last night: left wist is
very much swolen this morning.
but the right is better: sounds
of the heart about the same:
bowels moved 4 times to day:
tongue has a brownish coating
on it: pulse the same as yesterday:
June 6 pulse 70 full and strong:
slept very well last night: all
the joints less swolen: no bell-
ous murmur to be heard ord.
to discontinue the former tea.
an to have Vin. Antn.

Vin. Colch. āā ʒiii: xxx d 3 h.

Also at night Nitro Chlo ℔j d gr xii

Divers Tower ʒi

N. d. et ft. Chart. 4 one every night
Also 3 cups below left nipple
June 7 slept well last night:
pain in the right shoulder:
no pain at cardiac region: skin
still hot: pulse 72 and good:

hearts, sounds ~~[illegible]~~ ~~[illegible]~~
some murmur persistent:
had two stools during the
last twenty four hours: con. tre.
June 8 gums slightly tender:
pulse more natural: one stool:
skin still very hot and dry:
June 10 pulse softer no ab-
normal sounds of the hea-
-rt sleeps well: one stool dail:
Some pain in the left side
ordered Mass. Hyd. ʒß
℞. Opii gr xij
℞. Ipeca. gr xij
M. d. et ft. Pills No. xii one
each night Also ℞ Vin colch
gtts xxx four times daily:
Blister 4 by 6 over seat of pain
Jul 11 condition much the
same: ordere to con. tem.
Jul 13 pul 86: skin moist and
cool, no pains; convalescence

June 14 side very sore - from blister some cardiac murmur still.

June 17 some pains in the left arm one stool continue pills also by Guiac ʒii
Potap Nit ʒii
Sulpl Flo ʒp

M. d. at ft. chart No xii mm ter die

June 20 sitting up convat.

June 22 left to day relieved, not entirely well.